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1908.

EDUCATION DEPARTMENT, VICTORIA.

PRELIMINARY REPORT

OF THE

DIRECTOR OF EDUCATION

UPON

OBSERVATIONS MADE DURING AN OFFICIAL VISIT

TO

EUROPE AND AMERICA;

WITH RECOMMENDATIONS REFERRING TO STATE
EDUCATION IN VICTORIA.

By Authority:

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U. C. L. A.
ELIC DEPT.

The education demanded by a democratic Society to-day to overcome the inevitable difficulties that stand in the way of progress ; an education that, from the beginning, promotes his development in the most salutary environment and appropriate physical training ; an education that develops every natural power of observation and assimilation as well as head-power ; that inculcates the appreciation of beauty and the performance of duty to self and to others ; an education that, by continuing the work already done, enables the youth to discover his own powers and that impels him through oft repeated intellectual conquests to look forward to a life of habitual achievement with his head open to the world ; to analyze for himself the intellectual, economic, and political conditions of life, the insight, the interest, and the power to deal with them as they arise ; to advance his own advancement and for social service ; and, finally, that causes him to value life and to retain the prizes of life, namely, wealth, culture, usefulness, and thus makes him feel that a life without growth is not living.

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PRELIMINARY REPORT OF THE DIRECTOR OF EDUCATION UPON OBSERVATIONS MADE DURING AN OFFICIAL VISIT TO EUROPE AND AMERICA IN 1907 WITH RECOMMENDATIONS REFERRING TO STATE EDUCATION IN VICTORIA.

PREFATORY NOTE.

When the State Government of Victoria determined that I should attend the Federal Conference on Education, held in London, in May, 1907, I was further commissioned to make a brief visit to other European countries, and to America, and to observe systems of educational organization. As I was absent from Victoria but eight and a half months in all, my visits were necessarily brief ones, but I received such great help from authorities everywhere I went, that this made up, to a great extent, for the limited time at my disposal.

I was fortunate in securing the valuable co-operation of Mr. A. Williams, Director of Education, South Australia, who was travelling on a similar mission, and as we kept in close communication, we were able to make a much better use of our time, and to assist one another materially by the discussion of points as they arose.

In this preliminary report I have dealt with main features of the organization of a national system of education, and have not gone into details to any great extent. I propose to publish from time to time special chapters of my report dealing with such questions as, methods of education, the training of teachers, technical education, the education of the feeble-minded, the medical inspection of school children, agricultural education, and specialized education for girls.

The main purpose of this preliminary report is to show that satisfactory results cannot be obtained in Victorian education so long as important elements of a national system are wanting.

If Victoria desires to have a really satisfactory system of education we must be prepared to face a largely increased expenditure. This is my deliberate conclusion after seeing what is being done in other countries. It is for the people of Victoria to decide what quality of education they desire and to what extent it should be developed.

FRANK TATE.

Education Office,
Melbourne,
25th March, 1908.

The Honorable,
The Minister of Public Instruction.

SIR,

I have the honor to present to you a report upon my observations made during my recent official visit to Europe and America.

It is not my intention in this Preliminary Report, or in succeeding chapters, to endeavour to deal minutely with the systems of education of other countries. The past ten years has been a period of great activity in the study of systems of national education, and there has, in consequence, been a great output of excellent and detailed reports by special inquirers who have, in many cases, been able to devote years to their inquiry. These reports are well known to most professional educators in Victoria, and are available to all who wish to study matters in detail. I think that I can be of greatest service to Victoria to-day, if I give a clear and decided statement of my opinion as to the progress we have made so far in public education, and if I point out the steps which we must inevitably take if we are determined to keep pace with progressive peoples. For it is beyond question, nowadays, that national progress is bound up inextricably with national education. It matters not whether we are discussing the social well-being of a people, or the wisdom and sanity of its political ideals, or the conditions of success in industrial competition, the solution, sooner or later, resolves itself into one of educational efficiency. No subject, then, should be of greater concern to public-spirited men and women. If it is shown that other countries, with no greater material advantages than ours, are providing more wisely and more generously for the training of their young people, this should be a matter for real concern, and should evoke the best thought of the community. Unfortunately, there are many hindrances to the impartial and free discussion of an educational problem. The ever-present religious question is sure to be imported into it; private interests, which feel themselves jeopardized, will range themselves against new types of public schools; fear of increased expenditure will insure the opposition of sections of the taxpayers; while

National
progress
depends
greatly on
national
education.

Hindrances
to the free
discussion of
educational
problems.

Two notable
Australian
reports on
education.

there are not wanting many who, from a variety of causes, dread and distrust popular education. The greatest obstacle, however, to a satisfactory settlement of the question is public ignorance and apathy. During the past ten years, two notable Australian reports on Education have sounded very distinct warnings as to our short-comings. One of these, the Report of the Royal Commission on Technical Education, 1899-1901, made many important recommendations that have never received proper attention. The other, the report of Messrs. Knibbs and Turner, Education Commissioners for New South Wales, 1902-1904, showed how far the Australian States are behind European peoples in their provision for complete popular education. Wherever I travelled I found that these reports are justly valued, but in our own country they have never been really appreciated by public men. What we need to-day is that those who lead public thought shall throw away conventional and illiberal notions as to the scope and end of popular education, notions which other peoples have long outgrown and cast aside, and shall front facts fairly and squarely in an endeavour to build up in Australia an education system worthy of a potentially great people. If we can have the question discussed from the view-point of national well-being and apart from political and class prejudices, if we can, for the present, set aside for special treatment such confusing issues as the vested interests of private schools, and the extent to which the State should control school administration, I am certain that fair-minded men will come to the general conclusions set out in this report. The world-currents are unmistakably setting strongly in definite directions, and we in our little back-water here must make up our minds either to rest in a foolish content, or make a great effort to join the great current and advance. "We must take the current when it serves, or lose our ventures."

General
character of
recommendations.

And here I desire to say most emphatically that the establishment of higher schools, such as I advise in this report, will not tend to still further increase the number of aspirants to clerical occupations, nor will it add recruits to the "black coat brigade." I recognise that we occupy a new country which needs manual workers, and intelligent manual workers. All of my recommendations are in the direction of producing these. Our city intermediate schools will train for future technical work, our country agricultural high schools will aim at giving an intelligent interest in farm affairs. It is to our technical education as represented by our existing technical schools, and those to be created, and to the technical side of our University that I desire to lead up efficiently. I am in complete accord with the words of Mr. Holman in his "English National Education"—"Not wealth, but the power to produce wealth, is the

true measure of the commercial prosperity of the country. Not men, but minds, are the first requisites for superiority in production. Not handcraft, but braincraft, is the prime source of productive excellence. Not a worker, but an intelligent worker, is the mainstay of the industrial world. Not a machine, but the creative and guiding intelligence, is the greatest economizer. Mind is the great parent machine, and the great master machine. The mechanical is never the highest expression of the rational. Therefore, the best capital of a nation is the brain-power of its people." Such an ideal in education is not inconsistent with a broad humanistic training, and, indeed, the success of certain countries—notably Denmark—in the world's market has been largely due to an enlightened combination of broad humanistic education with technical instruction.

I.—THE "LADDER OF EDUCATION" IN OTHER COUNTRIES.

Even the casual student of education must be impressed, on a visit to the great countries of the world, by the many evidences that public education, interpreted in the most liberal sense, is there regarded as a vital function of the State, and as an essential of true national greatness and prosperity. He sees on every side public provision for costly schools of the most varied kinds, allowing of the highest degree of specialization. There are evening and day continuation schools leading into trade schools of all types, there are schools which give training for industries which require a high degree of knowledge and skill, there are schools which train for commercial pursuits, and schools which lead on to higher technical schools and universities. And these schools rest on a broad basis of publicly supported and controlled primary, intermediate, and secondary education, primary education compulsory for all, and intermediate and secondary education available for all. Best of all, he sees that in order to make the educational result bear on the most diverse needs of national life, effort is being steadily devoted to co-ordinating the different activities, so that they may be applied economically and surely. Briefly, these countries have realized that "school power" is one of the great factors in the ever-present world-struggle, and that time and thought and money must be ungrudgingly spent in building up and maintaining every part of a complete system. It must be a complete system if it is to be efficient; it must meet, so far as school education can, all the varied needs of the nation, whether social, or political, or industrial, and throughout it there must run a common aim.

Technical schools must rest on a better basis than primary schools alone.

"School power."

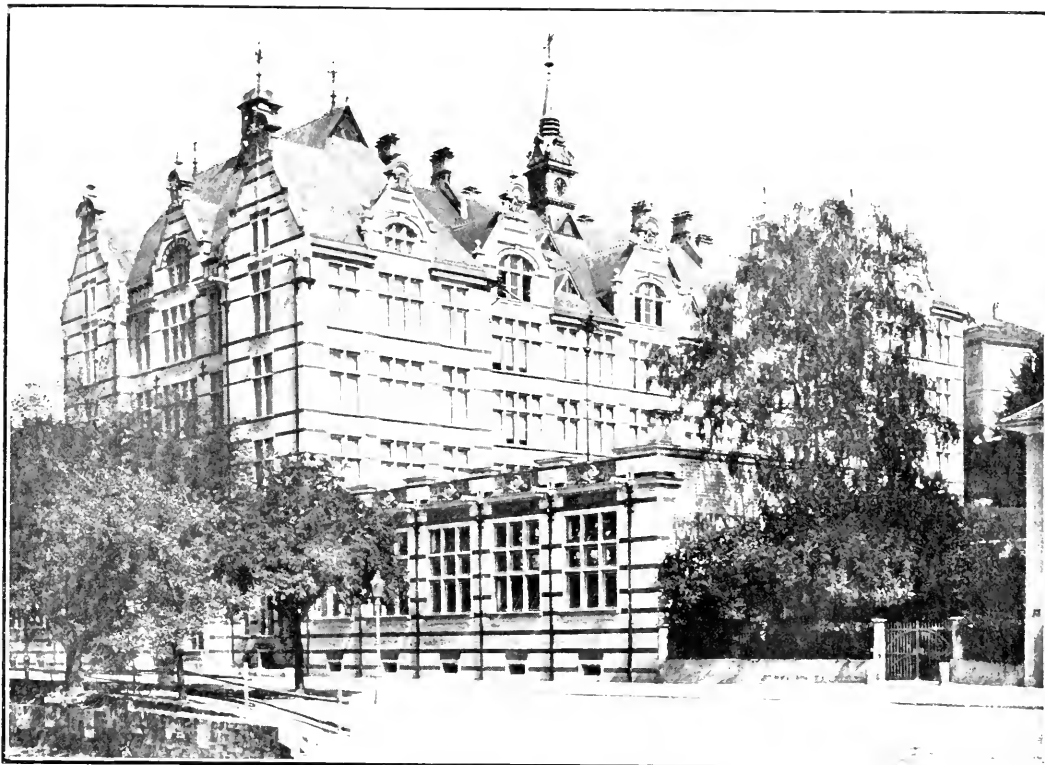
The ladder
of education.

European nations have long held the belief, and have acted upon it, that efficient higher education rests upon efficient preliminary education. In Switzerland, for example, as early as 1603, we find the Government of Aargau suggesting to every commune the establishment of primary schools, and soon after making this a compulsory duty. And for many years every Swiss Canton has had a supply of schools of every grade, forming an organized scheme of public education, complete in every stage, adequate for the needs of the whole Canton, and within the reach of the whole Canton. What is true of Switzerland, is true of Germany, of France, of Austria, of Denmark, of Holland, and of every progressive European people. These peoples have not dreaded public control of education; they have rather looked askance at private educational supply as being uncertain in quality and quantity, and as less conducive to the development of a national spirit. Nor has this development under State control and supervision hindered the free play of individuality in working out new methods and new experiments. It is only those who do not know the facts who talk so confidently about Government control producing dull uniformity of procedure. Government supervision of education on the Continent has produced a body of highly-trained teachers, knowing their subjects, and knowing the best methods of teaching these subjects. This is the best guarantee of individuality in teaching. Nothing is more depressingly uniform than the attempts the untrained make in the difficult and delicate business of teaching. It is true that in the past many valuable reforms have originated outside of the publicly controlled schools; but with a more generous course of education for all teachers and a more enlightened official control of the schools there will be no lack of individuality and initiative or of scope for their exercise.

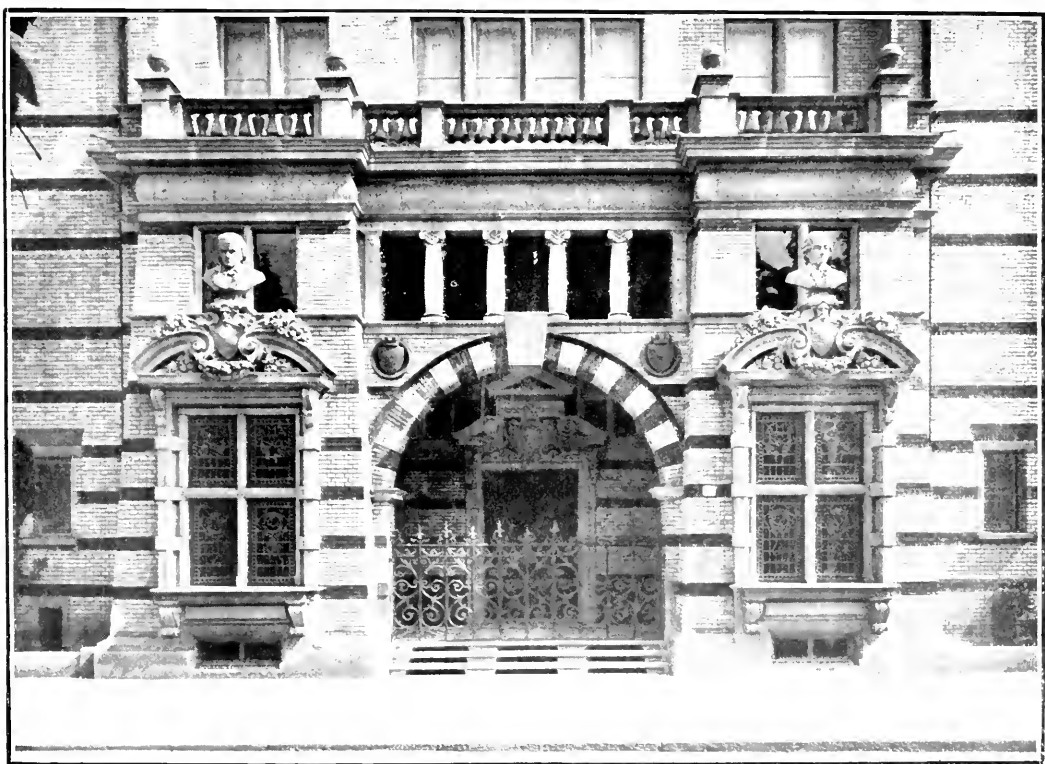
Public control
of education
does not
produce
uniformity
and sterility.

Great Britain
has only
recently
begun to
organize a
national
system.

The last of the great nations to face the problem of national education from the elementary to the highest grade is Great Britain. Long before the Education Act of 1870, her more enlightened neighbours had made very full provision for popular education, but the English Act of 1870 (which we unfortunately followed slavishly) established elementary education only. For the modern conception of national education was slow to take root in England. Her elementary schools were not established, as in America, from any belief that all the children of the State have a right to demand a fair opportunity for full mental development, nor did she take the European view that national efficiency rests upon school efficiency. Robert Lowe put the case aptly when, after the passing of the Reform Act of 1867, he said, "We must now, at least, educate our new masters." On



GIRLS' SCHOOL, HERSCHEGRABEN, ZURICH.
(Cost £32,000.)



MAIN ENTRANCE TO PRIMARY SCHOOL, HERSCHEGRABEN, ZURICH



ASSEMBLY HALL, PRIMARY SCHOOL (GIRLS'), ZURICH.



STAIRWAY, PRIMARY SCHOOL (GIRLS'), ZURICH.

the whole, popular education in England was undertaken grudgingly and distrustfully. It was unlikely, therefore, that a people who took up the business of public education in this spirit would make much of a success of it, and so it proved for the next thirty years. The idea, that popular education by the State partakes of the nature of charity, persisted long in England, and does so in Victoria to some extent. It is hard to credit that the most elaborate regulations were issued for defining the various classes of people who might rightly use State-aided schools. The schools prior to 1870 were for "the labouring class only." In the Regulations of the English Education Department, 1864, we find: "Simple policemen, coastguards, and dock and railway porters may commonly be regarded as labouring men. But petty officers in those services, excisemen, pilots, and clerks of various kinds, present more difficulty, and must be judged of according to the answers to the preceding inquiries, *e.g.* Does he rank and associate with the working men or with the tradesmen of the place?"* When in Switzerland, I quoted the above regulation to a Swiss gentleman, who smiled, shrugged his shoulders, and said expressively, "Ah, yes, that explains so much in English education."

There have been many attempts in England since 1870 to build up technical and intermediate education, but no comprehensive system was agreed upon until a few years ago. The Act of 1902 inaugurated a new era in public intermediate, and secondary education, and since then the greatest energy has been put forth in establishing efficient secondary and intermediate schools at public expense, and the old-time prejudices have vanished, or are vanishing fast. The mother country has been slow to move, but now the movement is going forward with characteristic determination. Before I left Victoria, I was advised by many that I should find little of interest or value in English popular education. On the contrary, I found the conditions in England intensely interesting, and of the greatest value to me, seeing that the beginnings of our own system were modelled on those of England. The pity is that while we adopted the restricted English views of 1870, we have not followed the advances made since. When, in 1895, the School Boards of England were developing higher elementary schools, we were too much occupied with the drastic retrenchment which called forth the scathing condemnation of a Royal Commission in 1899, a retrenchment whose damaging effects the Education Department is still feeling.

During the past six years the attitude towards public education in England has completely changed. Instead of public moneys spent on education being more or less restricted to

Recent
developments
in England.

Victoria has
not followed
England's
example.

State-
controlled
secondary
education
in England.

* Quoted by Sir R. L. Morant. Vol. 3, Special Reports.

elementary education, it is now competent for county and borough councils "to consider the educational needs of their area, and to take such steps as seem to them desirable, after consultation with the Board of Education, to supply or aid the supply of education, other than elementary, and to promote the general co-ordination of all forms of education." England has at last begun to work out a national system of education, and to follow in the footsteps of other progressive peoples.

Rapid
increase of
"State-aided"
secondary
schools.

In addition to elementary schools and higher-grade schools there are, as the latest reports show, 600 State-aided secondary schools recognised under the Board's regulations, educating 104,938 pupils; while, in addition, there are 93 secondary schools provisionally recognised, or seeking recognition. The gap between elementary and technical schools is further filled in by a comprehensive system of evening continuation schools. The statistics for 1905-1906 show that there were 5,728 schools providing evening work, attended by 749,473 pupils, and costing the State, in grant alone, £347,405. These figures do not include Wales, which, for a longer time than England, has had an elaborate system of intermediate and secondary schools. Scotland also has a national system, more completely developed than that of England, and her Education Act of 1872, unlike the English Act, made provision for secondary education. (See page 46.)

Such a system, or want of system, as ours, which endeavours to build up a successful technical and university education on the basis of State primary schools, with the whole field of intermediate education left to unregulated private enterprise, is unheard of outside Australia, and would never be expected from an enterprising and enlightened people, living under the forms of democratic government.

II.—THE CONCEPTION OF NATIONAL EDUCATION IN AUSTRALIA IS BEHIND THE AGE.

It is well for us Australians to realize now and again that our geographical isolation from the old world may produce a reactionary and provincial spirit in matters affecting national development. The nations of Europe developed their education systems under the stress of national peril and of keen industrial competition, and each has, therefore, kept on the alert to seize on every improvement which a rival has adopted. The danger from without has produced a solidarity of sentiment in favour of making united sacrifices to obtain efficiency as a people. Even in countries such as Germany, where class distinctions are so marked and so jealously guarded, it is recog-

nised by all classes that the well-being of the nation depends upon the developed efficiency of its units. The most elaborate and costly provision is therefore made, mainly at the public expense, for education of all grades.

Higher education at the public expense for all who are qualified to profit by it can be justified on humanitarian grounds alone, but no appeal has been more productive than that based on national danger arising out of fierce political or commercial strife. This appeal is the best corrective to the prejudices inseparable from distinctions of class and wealth, and it begets at least a prudent selfishness that prompts all to recognise the desirability of developing strength and ability wherever it can be found.

Australia, in its brief history, has enjoyed a course of peaceful development, and has never really felt the pinch of poverty. No great common danger has welded us into unity and given us a developed public spirit with the ideal that the best actions of life are those which consist in public usefulness and social service. We have been too prosperous, and have been able to make an easy living out of the great natural wealth we found awaiting us in this new land. Our gold, so far, has been won easily, and our farmers have lived upon the stored-up resources of a virgin soil. We have not, so far, competed to any great extent in the markets of the world. There has, therefore, been no great practical incentive urging us, as a people, to train each individual of our population to the highest pitch of development. On the contrary, the spirit of competition within our society has rather fostered a disposition among those who have assured means and position to look askance at proposals for giving the masses at public cost such an advanced education as will qualify them for equality of opportunity with themselves. We must now recognise that all our old conditions are changing, and that, year by year, as our virgin resources are used up, and as we develop a more complex industrial life, we shall have need of a more highly-trained people.

Why
Australia
does not feel
the need of
a better
education
system.

I have been so accustomed in Victoria to hear in public and in private, from all sorts and conditions of men, the time-worn and discredited arguments against any extension of the field of public education, that it was most refreshing to travel to country after country, and find that proposals, which, in Victoria, are timidly put forward, and are promptly scouted as dangerous and socialistic, have been boldly adopted, and have become the merest common-places of administration. One does not need to mention, as examples, those American States where public money is so freely spent upon public schools that pupils of any

Reactionary
views of
popular
education.

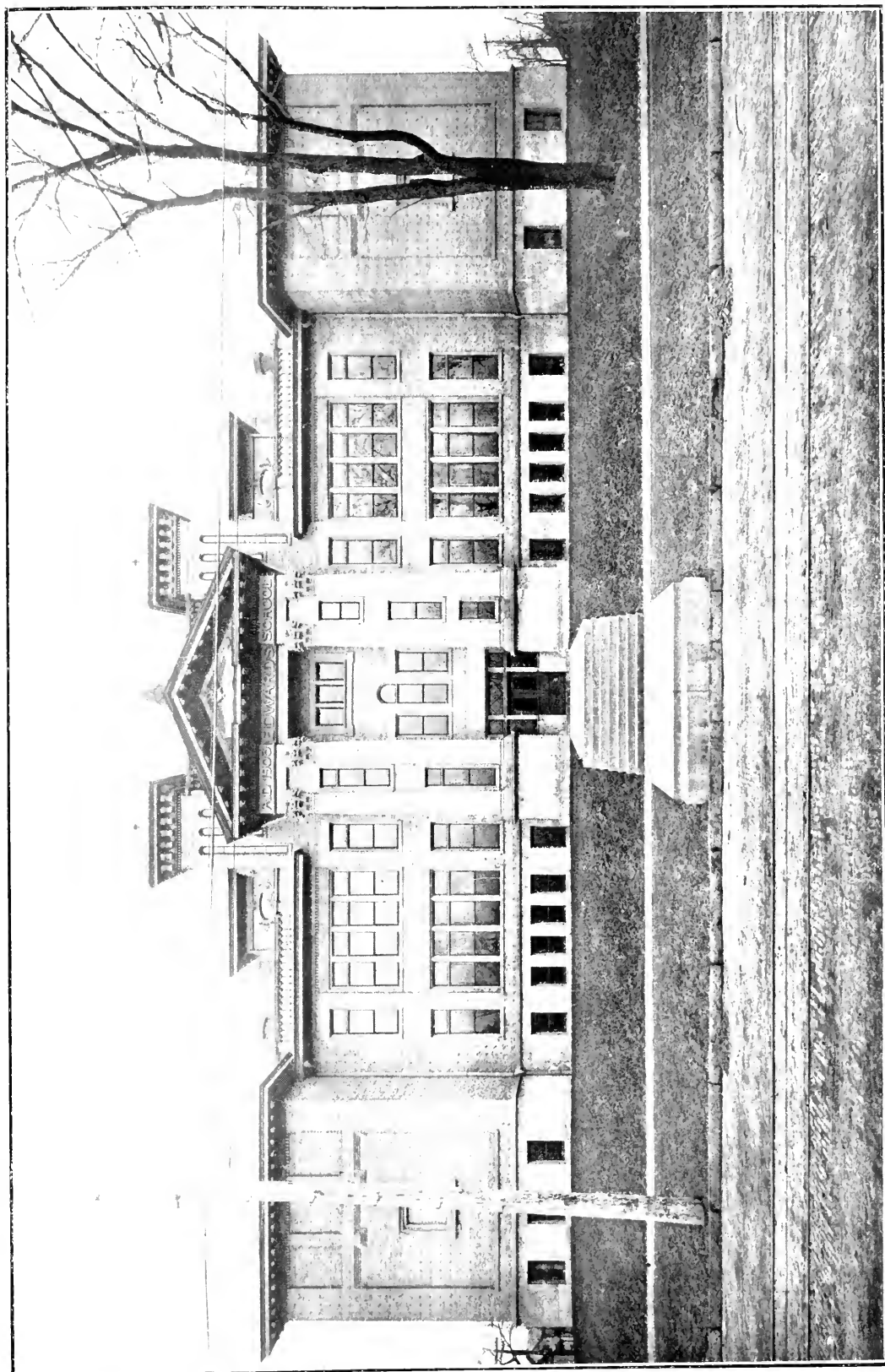
grade in life may travel through the kindergarten, the graded school, the high school, and the University, without fee or hindrance of any kind. It is sufficient to direct attention to what is being done in England and in Scotland to-day by such progressive municipalities as those of London, Manchester, Leeds, Liverpool, Glasgow, Edinburgh, and others. Public provision is now made for the most advanced education, and not, as with us, mainly for primary education. Higher elementary schools, secondary schools, evening continuation schools, trade schools, and higher technical schools are being freely provided and brought into proper relation one with the other, and where they are not free, the fees are kept low, and liberal systems of scholarships are provided. It seems as though, at last, the fine ideal of Huxley, in his speech to the London School Board, in 1871, is about to be realized in England. "I should like," he said, "to have an arrangement considered by which a passage can be secured for children of superior ability to schools in which they can obtain a higher instruction than in the ordinary ones. I believe that no educational system in this country will be worthy the name of a national system, or fulfil the great objects of education, unless it is one which establishes a great ladder, the bottom of which will be in the gutter, and the top in the University, so that every child who has the strength to climb, may, by using that strength, reach the place for which nature intends him."

Education of
physical and
mental
defectives.

Nor is it only the strong and capable that are looked after. There is a growing sense of responsibility for the welfare of the physical and mental weaklings of society. This also arises primarily out of a recognition of the truth that it is, to say the least, uneconomical to allow children to grow up either as a danger or a burden to society. Schemes of medical inspection of school children are now accomplished facts; special courses in industrial work are provided for the waifs and strays of city life; there are separate schools for the mentally feeble and backward; and even the physically crippled are taken care of and taught. Apart from purely humanitarian reasons, it is found cheaper to spend money wisely in those ways, and so stop the beginning of economic trouble.

Australia
behind other
peoples in
facilities for
higher
education.

Strange that Australia which, in some domains of political activity is so daringly progressive and democratic, should in education remain one of the most conservative and reactionary of peoples! And yet is it not certain that the safety and stability of democracy rest on education? What we want is a public awakening to the fact that Australian boys and girls, even in large centres of population, have not the same facilities for higher education as are freely provided in other countries.



EDWARDS SCHOOL, BLOOMINGTON, ILL., U.S.A.

In saying this, I include not merely the great countries of the world, Great Britain, France, Germany, Austria, and the United States, but also the smaller countries, more comparable with our own, such as Sweden, Norway, Switzerland, Denmark, Finland, and even our sister colonies in Canada, South Africa and New Zealand. In these countries one finds, nowadays, a more or less completely co-ordinated system of schools, from the primary school through secondary and technical schools to the universities, and the schools are maintained and controlled by the Government or by public bodies. As a consequence, they are either free schools, or they charge fees which are so moderate that higher education ceases to be the privilege of the well-to-do. It was not pleasant for me to find at the Federal Education Conference in London that the Australian delegates were practically the only representatives of British self-governing colonies who had to confess that public provision for education in their country was almost wholly confined to primary education.

The diagram on the next page shows, at glance, what provision the State makes in Victoria for public education in each of the principal grades. There are at present in Victoria 2,088 localities provided with State schools, with an enrolment of 203,782 pupils. The course of study in these schools is a fairly advanced one in the subjects usually included under primary education. Secondary education is provided by a system of scholarships only. There are eighty of these granted each year, and scholarships are tenable for three years at approved secondary schools. The fees at private secondary schools range from £16 to £24 per annum for tuition and necessary expenses. The technical schools of the State are supported by grants and fees, and so, too, is the University. We have not yet seen clearly that our technical schools and the University will never be available to the mass of our people while such a gap exists between them and the primary schools. Technical education and University education are the upper stories of our educational edifice. They should be approached by broad stairways leading from the primary through the intermediate and secondary stages. At present we have no intermediate schools of the higher elementary type, and the secondary story is locked against the mass of the people, and can be entered only by private stairways for which a heavy toll is charged. Our few scholarships are like so many ropes hung out for expert climbers only. We need the broad, open stairway accessible to all.

III.—WHAT VICTORIA HAS ACCOMPLISHED SO FAR.

In making comparisons between Victorian State education and other public education, I have always kept in mind the fact that we are a small community, as yet only seventy years old, and that in our brief national life we have had to expend time and energy and money in subduing the wilderness, in making homes, in running roads and railways, and in all the public works necessary for laying the foundations of a State. It is, therefore, to our credit that we have established an efficient free and compulsory system of primary education, so fully provided, indeed, that we maintain schools in sparsely settled localities with an attendance of as few as ten or twelve pupils. At the time of writing, I find that there are in Victoria 459 schools, with an average attendance of less than 19 pupils. These rural schools are not, as in some countries, schools which are open for part of the year only under the charge of a partially-trained teacher, but they are, normally, in charge of properly trained teachers who carry out the full syllabus of instruction.

Our rural schools are more than ordinarily efficient.

I wish to be perfectly fair, and to present, so far as I am able, every side of a truth, and, therefore, I desire, while pointing out our educational short-comings, to emphasize the fact that while, in Victoria, we have neglected to provide sufficiently for higher education, we have done more than ordinarily well in elementary education, especially in rural education.

The exhibition of State school work held in Melbourne in September, 1906, demonstrated the state of efficiency of our small country schools. The indignant telegrams which are published in the press whenever, from any cause, the Education Department has failed to supply a teacher, and a small school is, in consequence, temporarily closed, show how determinedly our country settlers guard their school privileges.

Short sessions and temporary teachers in American rural schools.

Contrast with the wholesome regularity of the Victorian State school service that of Nebraska, as told in the report for 1903. In some American States the school session, in rural districts, is for part of the year only, and therefore a teacher's engagement is casual. The State Superintendent of Public Instruction of Nebraska writes as follows:—

“Consider for a moment, if you please, a profession or a trade that requires regular, systematic, and careful training for its work; then imagine the employment of 8,000 persons in that trade or profession, three-fourths of whom are without any special training for it; then imagine the dismissal of one-fourth of the total number at the close of each year's work, and the shifting about of two-thirds of the others from one place to

This diagram shows the relative amounts of State expenditure on Primary, Secondary, Technical, and University education respectively. As ability to benefit by Technical education depends partially, and ability to profit by University education depends wholly, upon Secondary education, it can be seen at a glance how impossible it is to build a national system in Victoria under present conditions. The great mass of our people are shut out from higher education because we do not offer sufficient facilities for education of the Intermediate and Secondary class.

The figures given are those of 1906-7.

PRIMARY EDUCATION, including Administration, Training, and Buildings—£665,403.
93·1 per cent.

SECONDARY EDUCATION, that is Scholarships, &c., with Allowances—£5,874.
0·8 per cent.

TECHNICAL EDUCATION, including Maintenance Allowance for Buildings—£22,322.
3·1 per cent.

UNIVERSITY GRANTS, including Special Grant for Evening Lectures and Exhibitions—£21,000.
3 per cent.

another, having different conditions, new environment, and a new set of people to become acquainted with in order to do the best work; then you can begin to realize the public school situation in Nebraska, and to understand why the great and strenuous efforts of the best educators of the State are to a degree futile. The work must be done over and over again." (Report for 1903, p. 21.)

We Victorians reap in this connexion one of the great advantages of a centralized system supported wholly out of State funds. Wherever education is decentralized and paid for out of moneys raised locally, the rich and progressive districts are, as a rule, magnificently provided for, while poor and undeveloped districts are starved. In the United States and Canada, within a few miles of a town which had moved me to envy by its beautifully-built schools of all grades, elementary schools, high schools, technical high schools, and University college, I often came upon a settlement of farmers, where the unsatisfactory makeshift arrangements for the essentials of education for the children of the farmers, moved me to a corresponding pity and indignation. Again, when in England and in Scotland, I could not fail to observe that the inevitable tendency of their present system of organization is to draw the brightest and most intelligent teachers at once to the great cities, where, under the more important school authorities, there is greater scope for ambition. By our system in Victoria all of our young teachers must, as a condition precedent to promotion, take service in rural schools, and it is only by good work in these schools that a man or woman can hope to be promoted rapidly. As a consequence the rural schools of Victoria are often ahead of the city schools in educational development, for they are being steadily recruited by young, ambitious teachers, unhampered by conservative traditions. When in England, I was invited to address a large gathering of teachers at Aylesbury, Buckinghamshire, and was rather amused when I was given the subject, "How to keep the rural teachers in touch with educational progress." This is not an urgent problem in Victoria, but in England and Scotland, and America, where the schools are under local control, the problem is a very serious one.

Centraliza-
tion and
decentraliza-
tion
contrasted.

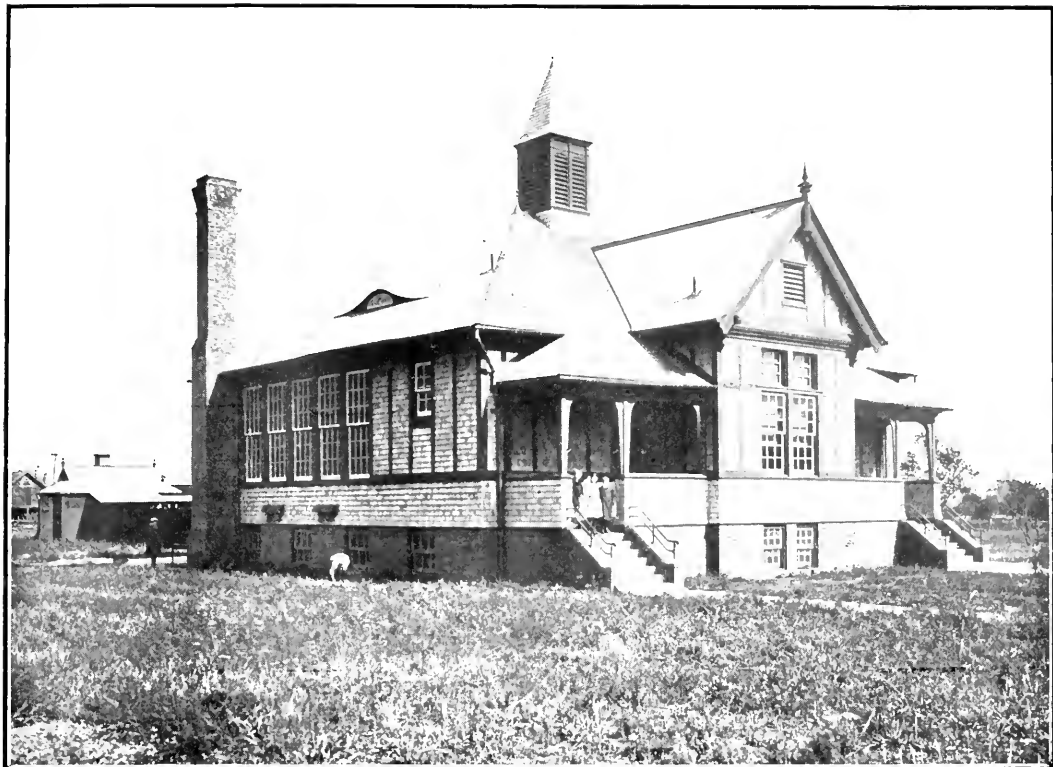
Wherever I travelled, I looked especially into the question of rural schools, and I have come to the deliberate conclusion that the rural schools of Victoria are as good as any I saw, and rather better than most. The development and maintenance of a generous system of country schools is, of course, essential to the well-being of a new country, such as ours, for a prudent

Tribute to
Victorian
rural schools.

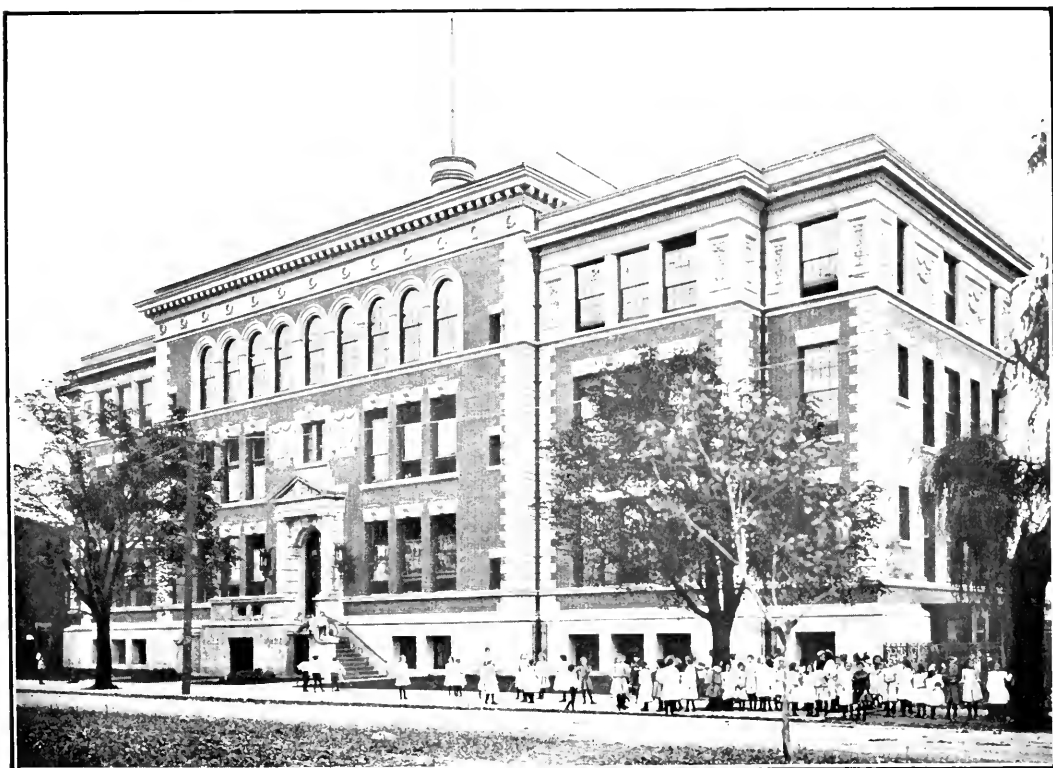
father will not take up pioneering work on the frontiers of civilization unless he is assured that the education of his children will be well cared for. We have reason to be proud that throughout Australia the paramount claims of our pioneering settlers have been, on the whole, generously met. There are at present 1,752 schools in Victoria with an average attendance of less than 100. I find that these schools have a total average attendance of 53,728, or an average of about 30 pupils. Naturally, the cost of these small schools is proportionately much greater than the cost of city schools, reaching, in some cases, as much as £10 per annum per pupil in average attendance. The work that our rural schools do is of a high character, and every effort should be directed towards making them still more efficient. If it could be shown that the establishment of public schools for higher education would necessarily jeopardize the efficiency of our rural education I would be one of the last to advocate it. But I do not believe that these two matters are in any way antagonistic, although I do not doubt that attempts will be made to show that they are. When people cease to believe, on hearsay alone, that "the cost of Victorian education is enormous;" when our public men compare our expenditure on education with that of our competitors, and find, as they will, that our primary system, so widespread in its benefits, is distinctly a cheap one as compared with the primary systems of peoples much more advantageously conditioned than we are; when they realize that an essential concomitant of cheerful settlement in the country districts is opportunity for the children to get the fullest educational advantages, and not a primary education merely; and when they come to see that the growth of education is downward, as well as upward, and that the way to improve our rural schools and make them bear more fully on national needs is to link them, through their district high school, to the agricultural college, the technical school, and the university;—in that day we shall have a development of higher education on the lines of the Western States of America, of Canada, and of New Zealand.

District high
schools are
necessary.

The people of Victoria are a wealthy people. They can always get what they really desire. They will desire efficient district high schools as soon as the case is fully put to them, and there will be no question of establishing them at the expense of existing schools. When I was in America I heard one of their public men say: "A western township is ashamed to be without a high school. The building is the finest and most conspicuous in the settlement. It is so in all of the North Central, the Mountain, and the Pacific States. They will abundantly take care of a splendid future." We should have the same faith in higher education in Victoria.



TYPICAL COUNTRY SCHOOL, CANADA.



PUBLIC SCHOOL, BROOKLYN, N.Y.

It is too soon, of course, to determine the effect of our district agricultural high schools at Sale and at Warrnambool. But, soon after my return, I visited Sale, and heard enough to convince me that hard-headed practical farmers and business men are quite satisfied that the high school is going to be of great value to the district. No talk there of adding recruits to the "black-coated brigade"! It is idle to talk of engrafting on the syllabus of instruction of our small country schools practical studies of any complexity such as agriculture, domestic economy, and the like. These schools are elementary schools, and, although a beginning may be made in such studies, it is only a beginning, and if it is to be effective, it must lead on to something further. The district high school will solve the problem, and will give a definite aim to the practical side of the elementary school work.

The
Agricultural
High Schools
at Sale and
Warrnam-
bool.

But while we congratulate ourselves on the efficiency of our rural elementary schools, let us not forget that fully 98 per cent. of our country boys and girls never advance beyond the primary stage of school education. In Victoria there are great and prosperous areas, in which there is no satisfactory provision for private secondary schools, and there are no State high schools. How, then, can we build up an agricultural education worthy of the name? How can we hope to bring about in our methods of production and of marketing that "co-operation of developed intelligences" which has done so much to make the agricultural prosperity of Denmark? Of what grade is to be the political life of our provincial districts if our future citizens are to miss the mind-awakening and mind-broadening influences of the high school subjects,—history, literature, science? These and many other questions confront us.

Higher
education in
Victoria is
confined to
the larger
towns.

In my judgment, there is need for far greater all-round intellectual development among our farmers than among our city workers. They are not employés, but employers. Their problem is constantly the problem of the best utilization of their capital, whether it is land, or implements, or live stock.. Ability to perform the manual operations of the farm is but a small part of the equipment of the successful farmer. He must have a well-developed intelligence, and a wide range of interests, and must be alive to the fact that he is engaged in a business which is becoming every year more complex and more scientific. He must be quick to marshal facts, and to see his commercial or industrial opportunity. He must be able to recognise the significance of the applications of science to his work, and be ready to take advantage of them. The development of this type of mind is a slow process. Beginning in the primary school the process must be continued through the period of adolescence before a

The future
farmer must
be an
enlightened
man.

satisfactory degree of maturity can be obtained. Ceasing, as it does now for over 95 per cent. of our children, at the ages of 13 or 14 years, not only is development arrested, but much of the power that has been gained tends to disappear. Lecturers of the Agricultural Department have often told me that the greatest handicap to their work is that too many, even of the young farmers, are not sufficiently educated to profit by their teaching. I have faith that the boys who graduate from our agricultural high schools will not be thus handicapped.

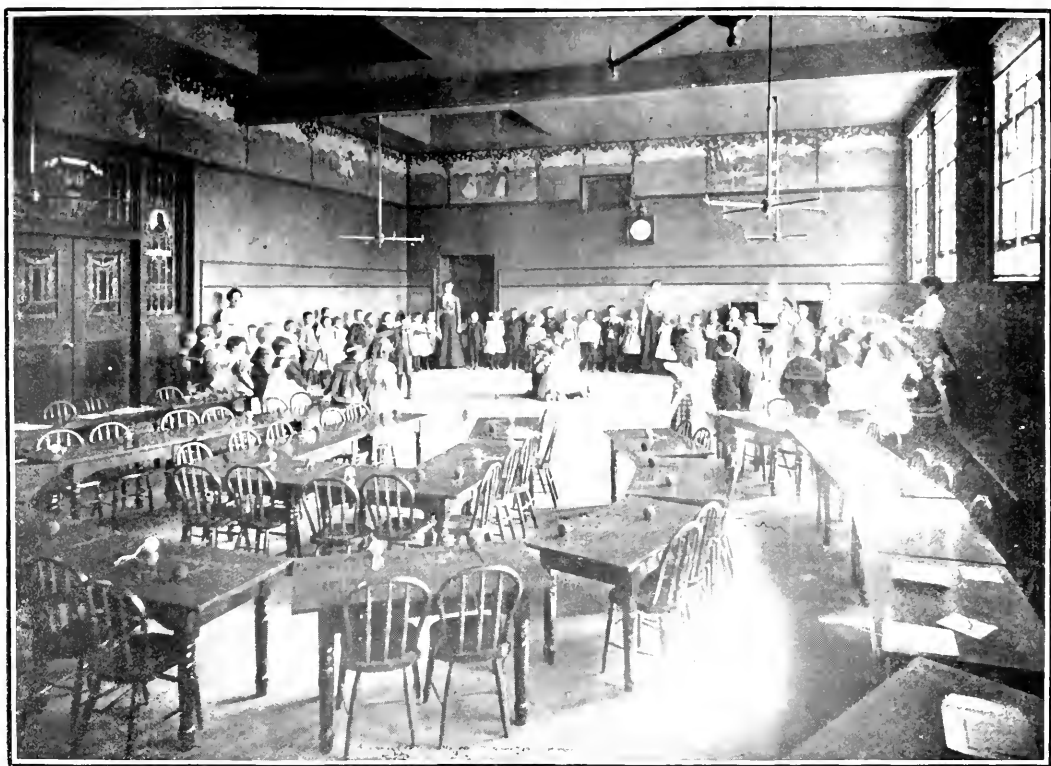
Recommen-
dation.

I, therefore, advocate strongly the establishment of District High Schools in country centres. These may be either the more elaborate District Agricultural High School, with its necessary adjunct, the school farm, or the central District State School, with higher elementary classes added to it, together with provision for science training and manual work. Countries which have developed such a system very well are Canada, New South Wales, and New Zealand. What they have done, we can do, surely!

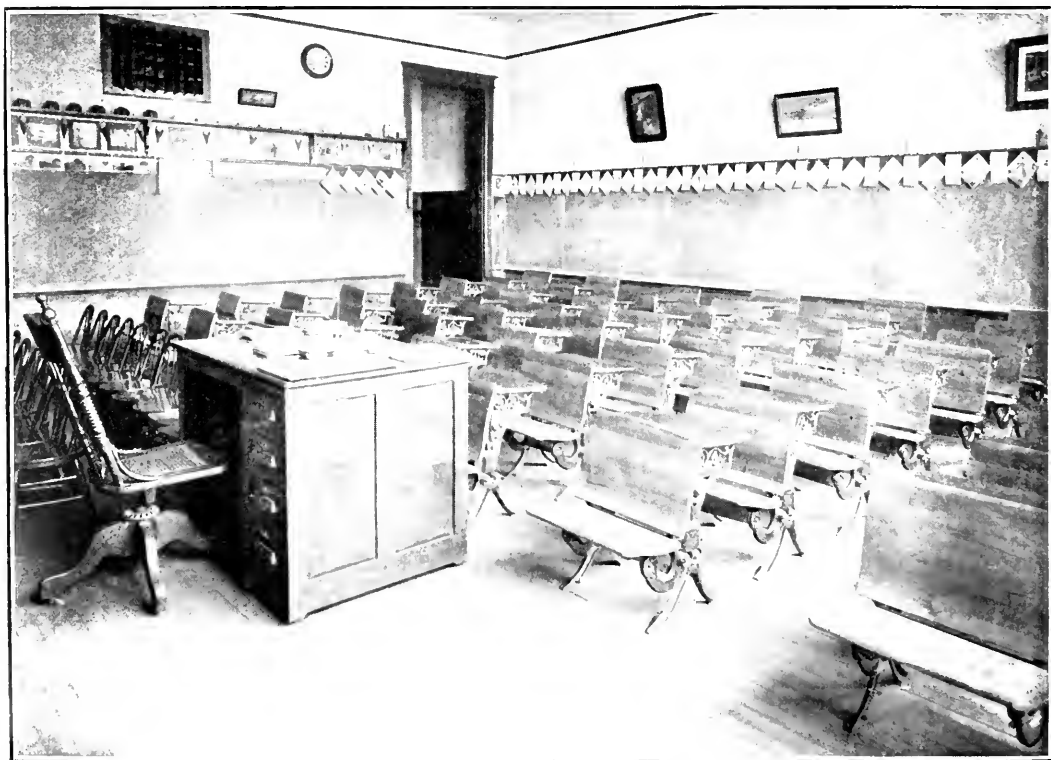
City and
town schools
of Victoria
are not so
good as those
met with
elsewhere.

But while I feel that I can speak in unqualified terms as to the efficiency of our country schools in comparison with those I visited elsewhere, I cannot speak so favorably of our work in the larger city schools. Our shortcomings in this respect are, however, not due to any want of skill or zeal on the part of our teachers. The causes may be found in our faulty buildings and equipment, in the excessively large classes we have given to our teachers, and in a too great dependence upon apprentice teachers. As I pointed out above, the city schools in other countries are supported either wholly or in part out of local funds, and, as a rule, they are magnificently equipped institutions. We are completely outclassed in the matter of school buildings. Outside Australia these are very often quite palatial structures, and money is ungrudgingly spent in providing for the comfort of pupils and teachers. Over and over again I heard public men say, in speaking of school buildings—"Nothing is too good for the children." In England, and in Germany, and in America, I visited elementary schools which had cost from £30,000 to £60,000 to build, and the cost for each pupil's place varied from £20 to £40. Most of our buildings have been erected at from £8 to £12 a place. I am aware that the elaborateness of school buildings is only a partial concern in estimating educational efficiency, but I mention the matter to show where we are in comparison, and as an evidence of the great financial support the old-world schools are receiving. In a succeeding chapter I shall deal in detail with the question of buildings. I would just

Buildings.



THE HALL OF AN INFANT ROOM, ST. LOUIS, U.S.A.



FURNITURE OF A TYPICAL AMERICAN SCHOOLROOM.

remark in passing, that all I ask for our teachers and pupils is that they be given buildings which are at least healthy and efficient educational work-rooms. What money we have to spare will be better spent in attracting to our teaching service a supply of the brightest and best of our young people, in training them efficiently, and in maintaining their willing and contented service.

In furniture and general equipment, too, we are sadly out of date. Everywhere the dual or single desk is the rule; and school furnishers have vied with one another in providing a comfortable and hygienic desk and seat. In no school that I visited were the conditions of seating so faulty as they are, unfortunately, in our schools. It is true that during the past eight years we have provided a better type of desk than formerly, but the great majority of our pupils have still to use most unsuitable desks and seats, capable of holding from six to eight pupils. These desks and seats are very faulty in construction, and have no backs. At the time they were supplied the plan was apparently economical, but they are harmful to the children, and they make the work of the teacher unduly severe. I have brought with me specimens of the best class of desk, and I have no doubt that at an early date we can arrange to have manufactured in Victoria cheap and efficient school furniture of a much better pattern than we have hitherto used. In this connexion, the example of New York is interesting. When a type of desk was desired, which was considered to be too costly for the education authorities, arrangements were made to utilize the hitherto partially unproductive labour of the prisons. I have dealt with this subject in a separate memorandum to the Minister, and have made recommendations for the supply of furniture to our schools.

Our school furniture is out of date.

When I saw in Great Britain and America the separate class-rooms, the abundant space, the partial isolation of the children seated in single desks, I could not help thinking how small was the nerve strain imposed on the teacher in comparison with that imposed on the Victorian teacher. Our faulty conditions make work in our schools unnecessarily difficult, and we pay for it in the lowered vitality of our teachers, and in the frequent applications for leave of absence. The wrong done to the teacher must be obvious to all.

Advantages possessed by English and American teachers over Victorian teachers.

Again, too, I found that the classes were everywhere much smaller than with us. Here we come upon one of the disadvantages of a centralized system. In England, for example, where schools are managed locally under conditions laid down

Centralization and decentralization

by a central Department, which pays portion only of the expense, it is possible for the central Department to have, and to keep, an educational conscience, and to demand fair conditions for the teacher and pupil. If an inspector reports that the accommodation is insufficient, or that the classes are larger than the statutory number, or that the staff of the school is insufficient, the Board of Education insists upon the local authority remedying the defect under pain of forfeiting grant. In a centralized system such as we have in Victoria, the authority which fixes the standard is also the authority required to give effect to it, and like the servant-monster in "The Tempest" comes to possess "a forward and a backward voice," the one demanding fair conditions, and the other pointing out the impossibility of getting them.

Victorian
classes are
too large for
efficiency.

We have, during the past year, set ourselves vigorously to improve the condition of our school buildings and equipment. We must also improve the staffing of our schools so that teachers may have fair conditions to do their work. Classes should not exceed 40 to 50 pupils, and we should recognise that in larger classes the work is only apparently, not really, done. So much was I impressed with the better quality of work done in small classes that I have almost come to the conclusion that if we cannot afford to give our teachers smaller classes than they have at present, it would be better to divide the classes, and let each pupil attend for half-a-day only. This certainly is a case where "the half is greater than the whole."

Victorian
teachers
compare well
with others
I have seen.

I had opportunities of meeting and of addressing bodies of teachers in England and in America, and I think that our Victorian teachers, taken as a class, compare very well with them. In spite of the many disabilities which I have enumerated above, our teachers, by their hard work and their genuine interest in their calling, have brought our system of primary work to a really high standard. After all, the personality of the teacher is the greatest factor in education, and we are fortunate in possessing a very fine corps of teachers. The pity is that we do not sufficiently recognise this fact. For many years now the Victorian State school teacher has not received good treatment from the State, and his lot has been a very poor one in comparison with that of other public servants.

It will, of course, cost money to carry out the above recommendations, but the people must be brought to see that good work cannot be permanently got for less than its market price. We must choose between partial and thorough efficiency. As a community, we are fond of saying that we believe in education. Let us believe in it up to the point of being prepared to pay for it righteously.

At the Federal Education Conference discussions took place on the staffing of schools and the size of the classes, and surprise was expressed that, in Victoria, we should rely so much on the work of junior or pupil teachers receiving salaries of from £20 to £50 a year. It was asserted, and the assertion is borne out by public documents, that there is no country in the world where the proportion of apprentice teachers is so great as in Victoria. It was not regarded as a satisfactory answer when I pointed out that, owing to a variety of causes, these junior or apprentice teachers are such in name only, and that many of them are women of from twenty years upward. It explains why our system produces results which are better than an outside observer would predict, but it is not creditable to us as a community. For the pay of juniors we are getting the service of seniors. The fault, however, does not lie solely in the small salary and prospects, but is often caused by the unwillingness of the female junior teacher to take up work in the country districts. The cure is the terminable apprenticeship system in vogue in other countries.

Too many
apprentice
teachers in
Victorian
schools.

IV.—WHAT VICTORIA HAS YET TO DO IN NATIONAL EDUCATION.

The Victorian people can say, with pride, that national needs in primary education have been, on the whole, very generously met, and that, taking all things into consideration, the State school system provides a very efficient and very liberal course of study, so far as it goes. But we have a different story to tell when we consider the question of provision for education of higher grade. We have, as I have said, a scheme for State school scholarships, and to this extent the State assists secondary education. The scholarship system has, undoubtedly, been the means of giving higher education to many who would otherwise not have enjoyed its benefits, and we can point to many successful professional men who were given their professional education through Government scholarships. The time has come for considering whether we make adequate provision for secondary and intermediate education, and whether it is wise and economical to omit to give greater facilities to our people to advance beyond the primary stage. At present, as I have said, there are important country districts in our State which contain no efficient secondary school. Unless, therefore, parents can afford to send their children to a boarding school in a large city, the children do not advance beyond the State school standard. To such parents the problem is, Shall we allow our boys to rest content with a primary school training, or are

we prepared to expend from £70 to £120 per annum for each of them at a secondary boarding school, where, in all probability, the course of study is designed to lead up to university work, and has no necessary bearing on a boy's future work as a farmer? One reason why our farmers distrust higher education is that so many can quote examples of country boys acquiring a distaste for manual and agricultural work through a city secondary school education, which prepared them for clerical and professional work only. We need intermediate schools in the provinces, and we need a course of study that shall have due reference to the work to which the student is to devote his life.

Present state
of secondary
education in
Victoria
tends to
develop a
caste
system.

In Australia, happily, we have not yet developed the definite stratification of society into classes which is everywhere apparent in Europe. But, even in countries where class distinctions are most marked, the modern conception of public education has brought within the reach of all the high school, the technical school, and the university; so that great forces are steadily working in the direction of minimizing the privileges of wealth and caste, and of giving to all a righteous equality of opportunity. Education is so organized, at present, in Victoria, that (except as I have indicated above in speaking of State scholarships) opportunity of rising by means of higher education is restricted to those who can afford to pay large fees.

Victorian
secondary
education is
the privilege
of the
well-to-do
and of the
city
dweller.

The Government Statist estimates the number of boys and girls in Victoria, between the ages of 14 and 17 years inclusive, at 111,007. The returns furnished to the Education Department show that there are 6,601 pupils over 14 years of age attending schools classified by the Teachers and Schools Registration Board as secondary schools. When it is pointed out that many of these schools have been classified as secondary schools on the evidence that they have, at some period of their history, succeeded in passing one pupil for the matriculation examination, it will be seen that the classification of these schools as secondary is based on an absurdly low standard, and is no guarantee that worthy secondary work is being accomplished. Now, of the 6,601 pupils over 14 years of age who are attending these schools, a goodly number are undoubtedly engaged in primary work, so that, taking into account the pupils below 14 years of age who are exceptionally well advanced, it is safe to say that in Victoria, last year, not more than 5,000 pupils were receiving a secondary education. This number is not five per cent. of the number of boys and girls in the State between 14 and 17 years of age. It surely cannot be argued by any one who knows what is being done in national education elsewhere that this is anything but a deplorable state of things.

As all of these pupils, with the exception of State scholarship winners, pay fees, it is not too much to say that, in Victoria, secondary education is the privilege of the well-to-do and of the city dweller. For country boys and girls the fees at a boarding school are usually prohibitive. How, then, can a satisfactory superstructure of higher education be raised in Victoria? Inquire into the work of the Working Men's College, the various technical schools, the Dookie Agricultural College, and the complaint is always the same—the usefulness of these institutions is impaired because the students are not properly prepared. And so technical schools, which should be engaged in advanced work, are in some necessary subjects forced downwards to the level of higher elementary schools, and the teaching power that should be utilized in special work is wastefully diverted to preparatory work. Even then hundreds of boys and girls who should attend technical and trade schools are not attracted to them because, during the years that have elapsed since they left the primary school, they have forgotten much that they knew, or they feel themselves unable to profit by the advanced work, or they have not formed habits of study. We need a system of intermediate schools—call them “higher elementary schools,” or “continuation schools,” or “secondary schools,” or what you will; and pupils should be encouraged to prolong their school life, and so form habits of study and ambitions for future advancement. There are thousands of parents who would hail with delight some efficient system of day or evening continuation classes to help boys and girls forward during a most critical time of life.

Our higher education must suffer.

Intermediate schools required.

The position in Victoria may be aptly described in the words of Professor Sadler, in a recent work, “Continuation Schools in England and Elsewhere”:

Physical, intellectual, and moral mischief in the present state of things.

“There is mischief in the present state of things, moral mischief, as well as physical and intellectual. City life is making the danger worse. Unskilled employment at thirteen, with good money, tempts a boy like a baited trap. He is drawn into a way of life which leaves him at sixteen or seventeen without a trade to his fingers, and with the habit of steady learning gone out of his head. If we ask the elementary schoolmaster about it, he says that much of what he and his colleagues have succeeded in doing for such a boy disappears during the two or three years immediately following the day-school course. If, on the other hand, we ask the teachers of the technical evening classes, we find them hampered by the fact that many of those who wish to enter have forgotten much of the knowledge which they require as a foundation for technical work. Thus, inquiries, which begin at opposite ends of the line lead to one and the same conclusion—that the years between thirteen and sixteen, or seventeen, are the point of educational leakage; that we have, as it were, laid down a costly system of water supply, but have left badly leaking pipes just behind the tap; and that some change is needed in our educational regulations in order to clench the work done in the elementary day schools, and to provide a sounder foundation for efficiency in skilled trades, and in the duties of home life.”

Secondary
schools
required.

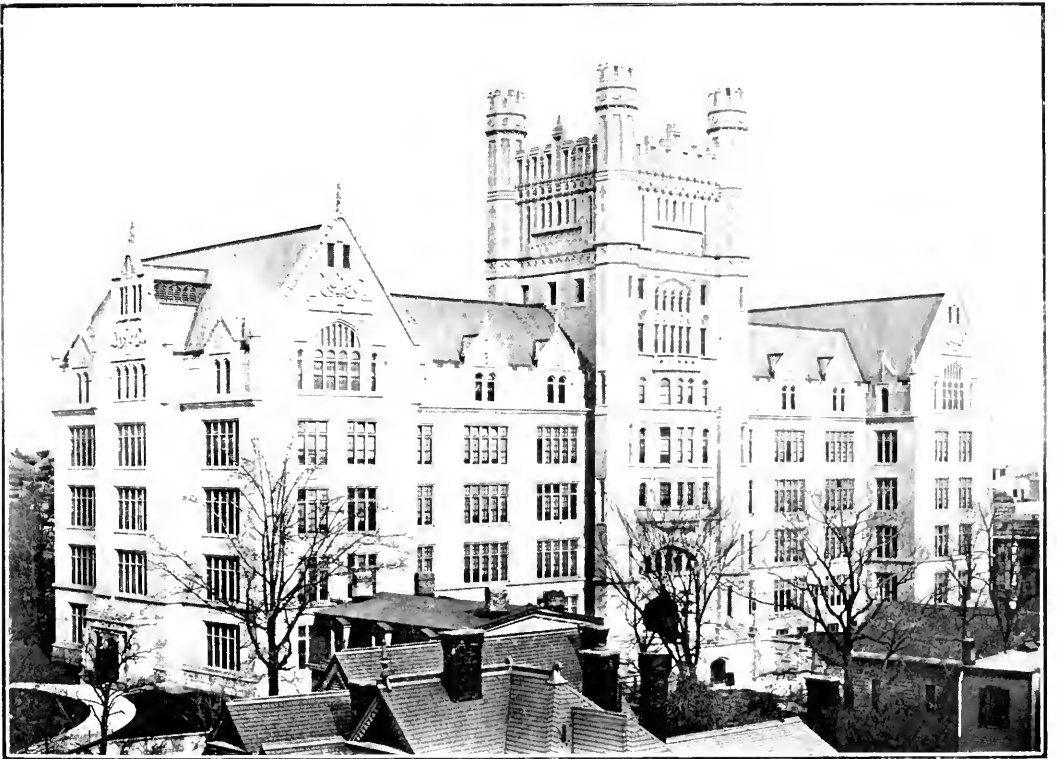
But it is not only schools of the "intermediate" class we require. Our "secondary education" also needs attention; for, although we have, in addition to the "public schools" controlled by religious denominations, a large body of so-called secondary schools conducted by private persons, the fees are necessarily high and even then principals find it difficult to pay for good teachers or for adequate equipment. We have not a secondary school in Victoria comparable in equipment with the ordinary Realschule, or Gymnasium of Continental countries, or of the Public High School of the United States. We shall soon be able to include in this comparison the municipal secondary, and higher elementary schools of England and of Scotland. The fact is that education, in the modern sense, is not a fit subject for unaided private enterprise. There is no more reason why secondary education should be self-supporting than that University and technical education should be self-supporting. It can only be so when those subjects which require expensive equipment and individual teaching are either starved or banished from the curriculum. Yet these subjects, science, drawing, and manual work, are those which play the most important part in technical education, and are especially needed in this young country. We should face the problem fairly, remembering that, as has been often said, "the development of the system of secondary schools marks, at present, with approximate accuracy, the exact rank that a nation holds in civilization." We can surely work out a scheme for keeping what is best in our system of private schools, and, at the same time, by means of oversight and financial assistance, such as other countries supply, give them the chance of being really efficient. The enrolment of students at the University is a very small one for our population, especially when it is remembered that, in addition to its being the prescribed training ground for doctors, lawyers, engineers, teachers, and clergymen, the University now offers courses in mining, agriculture, dentistry, and architecture. The cause is to be found in the restricted opportunities for secondary education. It is not too much to say that if an investigation were conducted in order to find out from which districts our University students are recruited, the result would show that important provinces of Victoria never send any of their young people forward to join the ranks of the professional and most highly-cultured classes. This is a national loss. Widely diffused secondary education gives a people the benefit of its best leadership. It brings into activity a wholesome rivalry between the children of the poor and the children of the rich, and allows the former to help the latter by keeping them up to the mark of their own capacity. I am reminded in this connexion of the

The
University
suffers
because of
lack of
secondary
school
opportunities.

Widely
diffused
higher
education
gives a
people the
best leaders.



CITY HIGH SCHOOL, LONG ISLAND, N.Y.



MORRIS HIGH SCHOOL, BRONX, NEW YORK.

request of a church dignitary to me a couple of years ago. He was discussing the work of one of our large secondary schools, and he suggested that I might be able to supply "a leaven of ambitious State school boys, trained in habits of industry, who might be able to set an example of good work, and thus stimulate to rivalry the less ambitious sons of the well-to-do."

Let me repeat again that widely-diffused secondary and higher education gives a people the benefit of its best leadership. An interesting investigation was carried out in America in 1901-2, with a view to analyzing as accurately as possible the educational advantages enjoyed by persons biographically mentioned in the well known publication "*Who's who?*" All of these persons have become noteworthy in some line of human effort, sufficiently so, at any rate, to make their biographies worth publishing. Out of 8,141 cases investigated, 5,775 were graduates of universities, or university colleges, or naval academies; 1,245 did not go beyond the secondary school; 313 were educated privately, and only 808 stopped short at the primary school. This surely bears out my contention, that, in a country like ours where over 95 per cent. of the people are not educated beyond the primary stage of school training, there is a danger that we shall not get the benefit of our best leadership. The cure for it is to increase our agencies for intermediate and secondary education, and to develop still further those we already possess, such as our "public schools."

An interesting inquiry as to the education of notable men.

The estimated population of Victoria in 1906 was 1,237,998. In that year the number of students attending lectures in the Melbourne University was 785. This gives one student to every 1,577 inhabitants of Victoria.

Our University enrolment is too small.

The report of the United States Bureau of Education, Chapter XXXVII., for the same year, 1906, gives the following figures for three European countries:—

Germany had one student in institutions of university rank to every 760 inhabitants.

Austria had one student in higher institutions of university rank to every 909 inhabitants.

Switzerland had one student in higher institutions of university rank to every 451 inhabitants.

When it is remembered that students who have gone through the full Gymnasium course are much better prepared than the students entering our University, it will be seen how badly Victoria compares in its higher education with these three older

countries. I have not selected these countries specially, but they are the only ones for which I have at present the figures available. I am aware, too, that foreign students attend these universities.

Cause of the small attendance at University evening lectures.

The comparative want of success which has attended the institution of evening lectures at the University also bears most instructively on this question. Subtract from the evening students the teachers and the articled clerks, and there are very few left. The reason is that there is in Melbourne no considerable body of young people who have received a preliminary training sufficient to enable them to profit by university lectures. The great majority ceased study on leaving the State primary school. Just recently a deputation waited upon the Premier of Victoria, and advocated a free university. As a matter of fact, the fees in some of the schools of the University are lower than the fees of secondary schools. We begin at the wrong end. We deny secondary education to the great mass of the people, by leaving it entirely in private hands, and centred in the great cities, and then we give a cheap university education to those who can afford to pay more for it. Again, it is practically impossible for the ordinary type of private school to maintain an efficient staff, and provide laboratories and equipment for secondary education of any worthy type out of an income derived wholly from fees. Even our so-called "public schools" cannot do so on the scale of the publicly supported schools of Europe and America. The result is a general lowering of the standard of what should constitute secondary education, and, in consequence, the University standard of the first and second year courses must also come down. The establishment of "State-aided," or State secondary schools, would, in time, remedy this defect.

Victoria is singular in neglect to provide "further education" for the masses.

It cannot be said too often that technical and university education in Victoria will never develop as they should until this question of intermediate education is settled. We are not wiser than the old countries of the world, and we cannot go far wrong in following them in their zeal for the uplifting of the people by education. We cannot afford to do less than our neighbours and our competitors, and I shall show later what New South Wales and New Zealand are doing. Face the question from any stand-point, the answer is still the same—intermediate schools are necessary. Will any student of our politics say that our Australian democracy can be healthily maintained, furthered, and strengthened, unless the mass of the people have been so wisely and fully educated that they are able to take an intelligent and comprehensive interest in State affairs? An ignorant democracy is selfish, aimless, and destructive, and tends

There is danger in this politically.

towards "mob-rule." Are we satisfied then that so large a percentage of our pupils leave all schooling behind at twelve, or thirteen, or fourteen years? The Education Department is alive to what it should do in our primary schools to cultivate the essentials of good citizenship. But it is not possible in the primary school, when dealing with immature minds, to build up a body of instruction that shall guide men and women in fulfilling their wider duties as citizens. The period at which the civic conscience begins to develop is subsequent to the primary stage. There is nothing more evident in Victoria than that a large body of our people, and these not of the "lower" class only, regard government as something external, and alien to themselves. They look on all questions from the purely personal and selfish point of view, and habitually think and speak of the government as something quite apart from themselves. They do not see that our politics are what we make them, that we have duties towards the State, and that it is only by performing these that we justify the possession of political rights and privileges. We cannot cure this with our present restricted educational opportunities.

Will any student of our social life say that we are a wise and far-seeing people, when he finds that we make almost no provision for the education of our boys and girls during the adolescent period, but leave them to the unregulated and uncertain forces of society at a time when they are most susceptible to temptation, and most need control and guidance? Making all allowances for those who are being educated in secondary and primary schools there are fully 30,000 other boys and girls in Melbourne and suburbs who are between 14 and 17 years of age. There is only one educational establishment supported by the State which offers any provision for the needs of this large number of boys and girls, the Working Men's College. I find on inquiry that the number of day and evening students at the Working Men's College who are 17 years of age and under is 939.* What becomes of the others, and how is their leisure time filled? Is it any wonder that so many of our young people have their minds filled with the sport of the season, cricket, football, and racing, to the exclusion of everything else, even in their work hours? They attend sport, bet upon it, and between times it is the all-engrossing subject of conversation. No one will deny that interest in true sport may be a most desirable thing, but an efficient people cannot be built up under our present conditions. Let any one who doubts this statement take a stroll from eight o'clock to ten o'clock on any evening through the main street of a Melbourne suburb or a country town and take notice of the young people he sees

A grave
social
question.

* This number includes all students taking single subjects or courses in subsidized technical subjects.

wandering aimlessly about, apparently devoid of any real intellectual interests. Will any one deny that Victoria would be richer in every way, socially, morally, politically, industrially, æsthetically, if the proportion of our boys and girls who remained in day or evening intermediate schools, and there formed the desire to advance to technical schools and the University, approximated more nearly to the proportion of boys and girls in Germany, or England, or Scotland, or Switzerland, or Austria, or Norway, or Finland, or Denmark? And is it not discreditable to us, as business men, that our higher educational institutions are poorly attended, and are doing only part of their full work, because we have failed to provide a supply of pupils competent to take full advantage of them? In this connexion, the oft-quoted words of Matthew Arnold, in his report upon a visit to Germany, Switzerland, and France, in 1886, are worthy of note—"And this brings me, thirdly, and finally, to the point raised at the end of my first remark, and urged by me so often, and so vainly, ever since my mission abroad in 1859; our need to organize our secondary instruction. This is desirable in the interests of our higher and secondary instruction, of course, principally; but it is desirable, I may say it is indispensable, in the interest of our popular instruction also. Every one now admits that popular instruction is a matter of public institution and supervision; but so long as public institution and supervision stop there, and no contact and correlation are established between our popular instruction and the instruction above it, so long the condition of our popular instruction itself will and must be unsatisfactory."

It is
uneconomical
to leave our
State system
incomplete.

If we believe in the influence of national education upon national well-being, we must determine to build up a complete national system. We have State primary schools, State technical schools, and a State University. They are incomplete and ineffective without provision for State intermediate and secondary schools. In some of our factories we have machinery so ingenious and so complete that one can follow all stages, from the raw material to the finished article of commerce. The most precious raw material in the State consists of the undeveloped children of the State. Are we able with our present educational machinery to turn out a well-finished article, to carry forward every boy to the stage which he is fitted to reach? We are not; and if we rest content, we shall inevitably fail, and we shall deserve to fail. There are great obstacles in the path of advancement,—public apathy, fear of increased expenditure, and conflict with vested interests. As regards expenditure, I think that the question is not, "Can we afford to do it?" but rather,

“Can we afford not to do it?” As regards vested interests of private schools, I think that it is not beyond the wit of man to devise a method by which these interests shall be treated fairly, while at the same time the general good is steadily advanced. I should consider it a distinct loss to our national system if the efficient private schools we have developed were crushed out by the unregulated competition of State schools, or if the fine schools we are developing on the model of the English public school, should find their development in any way hindered.

V.—WHAT OTHER COUNTRIES ARE DOING IN POPULAR EDUCATION.

Compared with other peoples, we Australians are conspicuous examples of the neglect to organize fully our educational resources. We have laid the foundations of a national organization broad and deep in what is, on the whole, a very efficient and generously-supported system of elementary State schools. But, although we have made some provision for State technical schools, and have, almost wholly with State money, built up a good University, we cannot claim to have a well-knit and complete national system. Even the fragmentary parts of the system which we have are not united by any common purposes, and cannot be so united under present conditions.

The great nations of the world have come to see clearly that the greatest of national resources is the mental endowment of the people, and that it pays to spend time and thought and money in devising means to give individual members of the community opportunity for the fullest mental development. Since the year 1800 history has been full of examples of national growth and greatness, finding origin in the development of national education. One may pass over, as fairly well-known, the great examples of the rise of Prussia after the disaster of Jena, 1806, and the effect of the battle of Sedan, 1870, on French education. In the making of modern Germany out of so many diverse and conflicting elements, education has been a constant paramount factor. Since 1806, the history of the education system of German States has been the history of persistent endeavour to produce trained citizens—men able to do with skill and precision all that is necessary to earn a good living, and possessed at the same time of those developed qualities of head and heart which go to make a good citizen. The Germans have always seen clearly that the requisites for permanent national greatness are true hearts and clear heads. As a consequence, there is amongst them no silly talk as to the masses

The example
of Germany.

being given "the essentials" of education only—the three R's—or, at best, "a bread and butter education," made up of instruction in trade schools, based upon a starved primary system only. And thus, as an acute English observer reports, "the German is not, in the first place, a chemist, a manufacturer, or a tradesman, but a German and a man, who, in both capacities, has reached the highest point of development of which he is capable All the leaders in different branches of German national life, therefore, pass through the secondary school, which provides, in the strictest sense of the term, general education."* And this explains why, beneath all the movement for a unified Germany, there was "the moral and intellectual conviction that the supreme claim on the individual was that of service in the interests of knowledge as a whole, and of the community as a whole." It was owing to this fact that Bismarck was able to say, in 1895—

Bismarck's
testimony to
the Teacher.

"If I had not found in our nation the preparatory work of the secondary teacher's profession, I do not believe that my work, or the work in which I have collaborated, would have met with such success."

The history of the German States, from the disaster of Jena to the victory of Sedan, 1870, is a striking tribute to the regenerating and creative powers of national education. Renan summed up the causes of the disaster of Sedan—"It was not the needle gun, it was not the German soldier that held the needle gun, it was not the German schoolmaster that made the German soldier, but it was the German University that made the German schoolmaster." On page 57 will be found a conspectus of German education. This indicates how very thorough and far-reaching its organization is. To show how thoroughly the German believes in State-controlled education, it may be mentioned that the census of 1st December, 1900, found that the total number of children of school age was 9,800,000, of whom more than nine-tenths were enrolled in schools supported and controlled by public authority.

National
education in
France

And what of France after Sedan? Since 1870 France has spent money on education as never before. In the years 1877-1902 the total annual expenditure on primary education alone has nearly trebled, increasing from £3,775,902, in 1877, to £9,463,958, in 1902, or from 18s. 9d. *per capita* of enrolment in public primary schools to £2 0s. 9d. *per capita*, exclusive of buildings. In addition, there were spent for building purposes, in the years 1879-1903 inclusive, a sum of £30,859,369, exclusive of Paris and four other large cities whose accounts are not under the supervision of the State. If these cities are included, the amount spent on buildings, in

* Mr. Fabian Ware—"The Educational Foundations of Trade and Industry."

these years, would reach £40,000,000. The Republic has been forced to build itself up through its public school system. In addition to its public primary and higher primary schools, France supports an extensive secondary system of public schools, lycées, communal colleges, and technical schools, both elementary and advanced, and makes large grants to Universities. The United States Bureau of Education reports (1906) —“The total expenditure for public secondary education, in France, has not been reported for several years. The State appropriation for public secondary education, in 1905, was £1,069,744.”

But one does not need to take arguments from the conflicts of nations in the open shock of war. Under modern conditions there is ever present with us keen industrial war between peoples, and the conflict is ever being intensified by greater facilities of communication and transport. Industrial problems are now concerned not only with competition between man and man within the State, but also with struggles for commercial supremacy between peoples competing as nations one with the other. This is especially true of those peoples whose trade is largely made up of food supplies. We Australians must compete as an Australian people, or as separate States, in the markets of the world. Other nations have realized how much it pays them to fight as a nation of well-trained producers, led by men of developed intelligence, and so they have wisely ordered that no grade of education shall be left to fortuitous provision or supervision. Every rung of the educational ladder must be sound, and must be accessible to those who are fit to climb. The prizes to be won by peoples in the great wars of industries were never so great as now, nor was ever the strife so keen. “A market once won must be kept by constant striving, for the prizes are ‘challenge cups’ to be held against all comers.” The rank and file of producers must, therefore, be trained men, while, at the same time, the “instability of the conditions of world commerce and the intellectual intensity of modern competition, carry with them the need for a new alertness in the secondary and technical schools, which prepare the leaders, the staff officers, and the scouts of our commercial army.” Progressive communities are realizing this fact, and so everywhere, outside of Australia, facilities for higher education than that afforded by our State schools are being given to an extent hitherto undreamt of.

Industrial
war ever
present.

Need of
technical
training.

Take the experience of one of our great competitors in the produce market—Denmark. Dr. Jas. Robertson, formerly Commissioner of Agriculture and Dairying for the

The example
of Denmark.

Dominion of Canada, in giving evidence before a Select Standing Committee on Agriculture and Colonization, 3rd April, 1907, said:—"This little kingdom of Denmark, with a population slightly less than that of the province of Ontario, sends to the United Kingdom some of the same sorts of agricultural products as Canada, and takes out of the English markets, on an average, over eight million dollars a year more than any other country gets for the same quantity of butter, bacon, and eggs. That is the premium obtained by the Danes for superiority of quality and condition; the premium for the adoption of industrial and agricultural education. That amount would pay the rural school bill for all of Canada at the present time. The large and wealthy province of Ontario spends some three and a half million dollars annually on all her rural schools, and the kingdom of Denmark takes out of England over eight million dollars annually as a premium for superior quality on butter, bacon, and eggs. The rural population has been educated towards ability, towards intelligence in regard to rural life, and towards the development of a public spirit which makes for successful co-operation. There are material gains and very much besides."

Outward
loss, inward
gain.

But it is interesting to see how the prosperity of Denmark dates from wise action in improving education at a time when the nation was suffering a terrible reverse. The Danes have a proverb, "Outward loss, inward gain," and the trials of the war of 1864, when her richest provinces, Schleswig-Holstein, were wrested from her, and when she experienced agricultural depression and commercial straits of all sorts, strengthened the resolve to develop her people to the full.

The remarkable educational movement for "People's High Schools" gained greatly from the time of this reverse, till there are now 82 recognised schools. The development of these schools coincides with the upbuilding of a regenerated Denmark. These high schools have been called "hot-beds of the co-operative movement," the movement which has done so much for Denmark's prosperity.

Statistics have been prepared to show that "every other chairman of committee, and much more than every other dairy manager" has been a student in one of the 82 high schools.

"About a quarter of all the men and women, between 20 and 50 years of age, now engaged in Danish agriculture, have passed through a People's High School." Previous to the development of these schools, Denmark had little or no external trade. In 1903, its exports were valued at £19,585,558. Of this amount there was received from Great Britain alone £9,572,439 for

butter, £4,294,017, for bacon, and £1,648,367, for eggs. And this from a country with poor soil, a harsh climate, and an area one-sixth of Victoria!

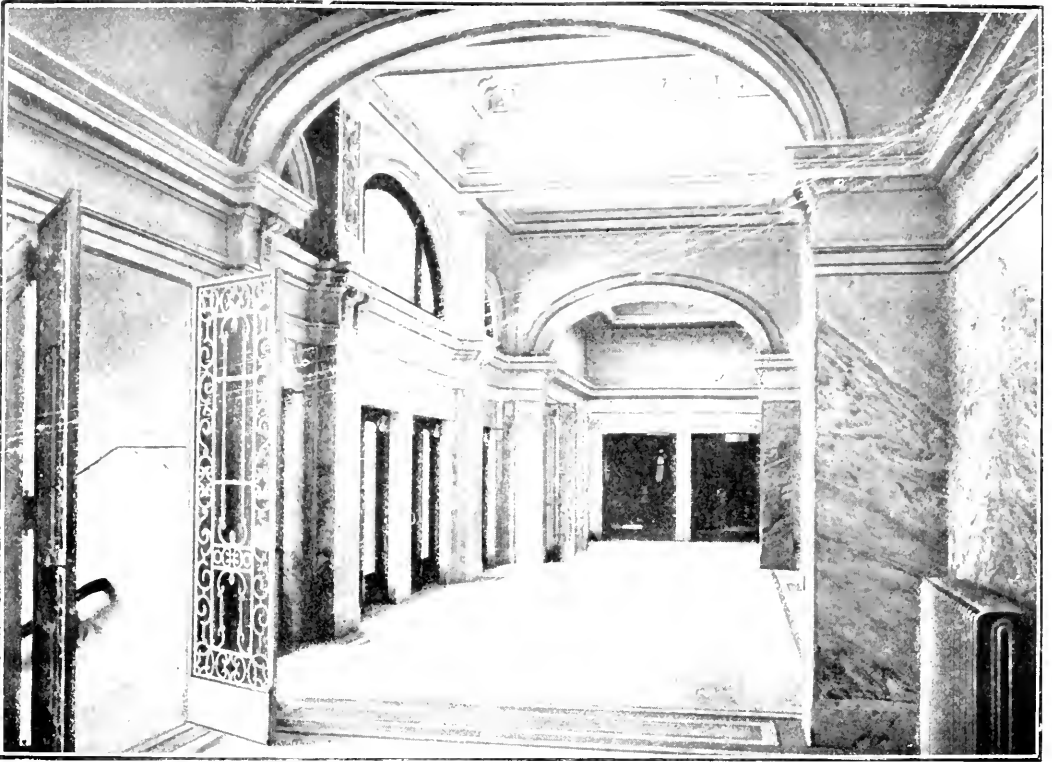
It must be pointed out that these Danish People's High Schools are schools for adults, mainly taking six months' courses. Many of them are not so much technical schools as schools for general culture, because the Danes lay great stress on producing what has been called the developed "industrial intelligence." So the subjects of instruction, in a People's High School, may be chiefly history, physical science, mathematics, and the mother tongue, while much attention is paid to the singing of folk songs, to the formation of character, and to religious training. Some of the People's High Schools, however, have forms of technical training as side subjects of the school, *e.g.*, agriculture and building construction. But, out of 66 schools, 38 are at present high schools, without technical subjects. The objects of the schools were explained by their great founder, Grundtvig.* "It is," he says, "my highest wish, as a citizen, that soon, and better to-day than to-morrow, there may be opened a Danish high school accessible to young people all over the land, where they may readily get leave and opportunity to become better acquainted, not only with human nature and human life in general, but with themselves in particular, and where they could receive guidance in all civic relations, and become well acquainted with their country's need in all directions, whilst their daily life and love of country are nourished by national speech and historical information, by mutual intercourse with one another, and by the lively songs, which are heard through all periods of Denmark's history, and inspire admiration for what is great, warm love for what is beautiful, faithfulness and affection, peace and unity, innocent cheerfulness, pleasure and mirth." "The teachers he desired were:—(1) One who was a master in the mother tongue, not merely as found in books, but as spoken by the people, and could help his pupils to understand what they hear, to think in an orderly way, and speak clearly and fluently of what they think and know; (2) one who knew and loved his country's history, and could tell it in lively fashion; (3) one who knew and loved the popular songs, both in old and newer form, and could either lead the singing or get some one to do it; (4) one who could give an orderly account of his country's condition, its business activities and sources of wealth; and (5) it was also desirable some expert should give the pupils a true and living representation of the national constitution and laws."

Objects of
the People's
High Schools
of Denmark.

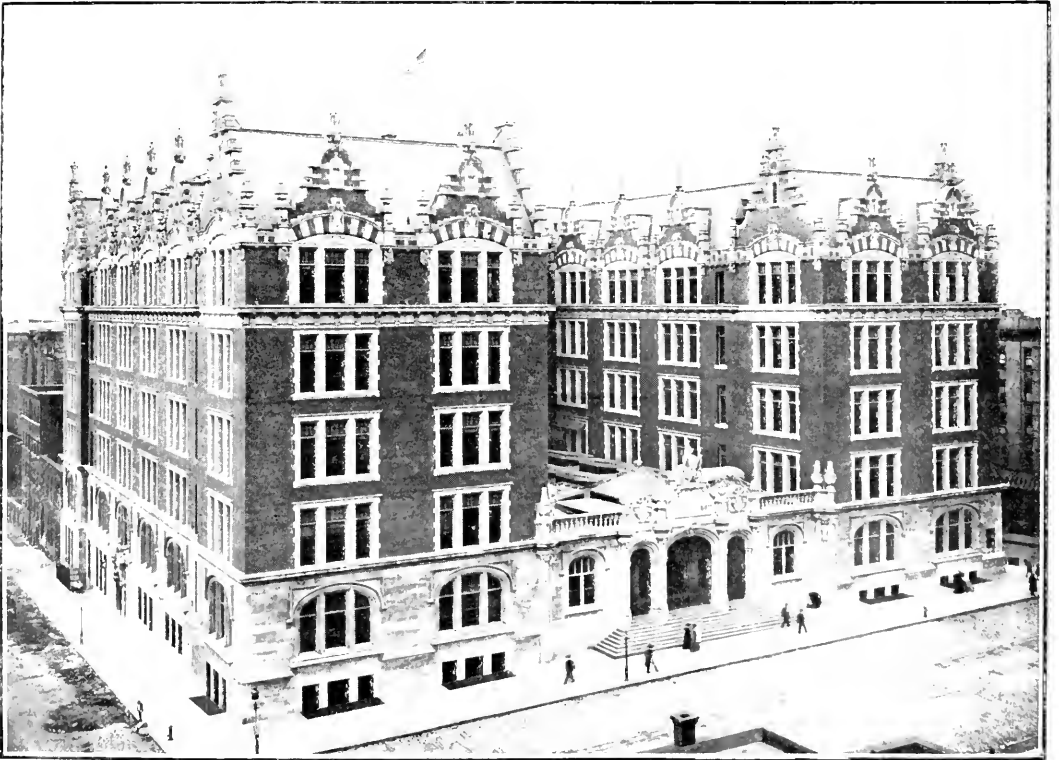
* "Continuation Schools in England and Elsewhere."—Sadler.

Some causes
of Denmark's
material
prosperity.

The following extract from an article by Mr. J. S. Thornton shows what an enormous effect on the development of Danish industry these high schools have had :—"Co-operation began in England earlier than in Denmark, but in the latter country it has had a more striking success. A correspondent, who was formerly a high school pupil, thinks the success is due to the confidence which the Danes feel in each other's words and doings; and he adds, 'I do believe that the high schools have been real hot-beds for the seeds from which this has developed. This development of the character of (I trust) the greater part of the population is the finest result of the work of the high schools, and it forms really the basis for the whole future development of the nation.' And this co-operation is especially active in the field of agriculture. Agricultural societies, societies for the breeding of horses, cattle, or poultry, for the purchase and sale of farm products, and for the control of dairy herds, are spread all over the land. But it is in the production of butter that the most wonderful effects of co-operation are seen. It was imperative that, if agriculture in Denmark, in the seventies, was to regain its prosperity, less attention should be paid to corn-growing, and more to the raising of stock and to dairy produce. In 1880, and the succeeding years, came a further change. The agricultural population changed as with one accord to co-operative methods in making butter and cheese. If the reason of this promptness be sought, it will, perhaps, be best to give it in the words of Professor Povl La Cour, to the Agricultural Congress at Stockholm, in 1897 :—"The resoluteness and capacity with which Danish farmers passed over from making a quantity of poor butter on the smaller farms and holdings, up and down the country, to the manufacture in co-operative dairies of a butter of almost uniform fineness is, no doubt, a consequence of their having had expert leaders like the late N. J. Fjord, without whom no progress could have been made. But,' he adds, 'the question remains how a great agricultural population in so short a time could be induced to follow directions, and carry the matter through.' In order to answer the question statistically, he sent out schedules along with one of the issues of a leading dairy journal to 970 co-operative dairies, and 260 butter factories (following the same methods as the first, but not on co-operative lines). Though, unfortunately, he received answers from only 436 of these, which employed, altogether, 436 managers, 723 dairymen, and 470 dairy-women, the result was sufficient to give a picture of the situation. He found that, of the managers, 47 per cent. had been at a high school, 24 per cent. at an agricultural school, 62 per cent. at a dairy school, and, generally, 90 per cent. had been



ENTRANCE HALL, DE WITT CLINTON HIGH SCHOOL, MANHATTAN, N.Y.



DE WITT CLINTON HIGH SCHOOL, MANHATTAN, NEW YORK.

at 'one or more of such schools." He concludes :—"Just as an enrichment of the soil gives the best conditions for the seeds sown in it, so a well-grounded humanistic training provides the surest basis for business capacity, and not the least so in the case of the coming farmer."

Testimony
to the
value of
humanistic
training.

What a powerful argument for the establishment of further educational facilities in our Victorian country districts! Can we, in the face of this, look with equanimity on the present state of things, which tolerates that only two or three per cent. of our country boys and girls ever go beyond the stage of primary education?

The rise of modern Japan, as a competitor in the world's markets, is surely also another victory for national education, while the remarkable record of successes scored by the Japanese in many fields of activity during the recent Russo-Japanese war depends, in practically every case, upon the high degree of directive and executive skill which her schools have produced in her people. For some years past Japan has been engaged in developing a national system of education, complete in all its grades, beginning in carefully organized kindergartens, and leading on through primary and secondary schools to the higher technical and commercial schools, and to the universities. Her ablest students have been sent abroad at Government expense to study methods and curricula, and a very completely developed intelligence bureau watches all developments in foreign education. The achievements of the Japanese in so short a time show what can be done by a people who are in earnest in the business of public education. It is now the fashion in Australia to speak of Japan as the country whose ambitions are most likely to affect our future. Would it not be well to keep pace with her in training our people through education?

The example
of Japan.

The people of the United States of America have the reputation of being eminently business-like and practical, and of requiring a dollar's worth for every dollar; yet nowhere is money being spent so liberally upon education of all grades as in the United States. Public education there is, as a rule, absolutely free, and in many States every pupil has the right to travel upwards through magnificently equipped institutions from the kindergarten to the university without fee of any kind. In every part of the United States that I visited I found the free public schools occupying the best buildings with the finest architecture, the most luxurious furnishing, with all appointments, such as lighting and ventilation, as perfect as modern

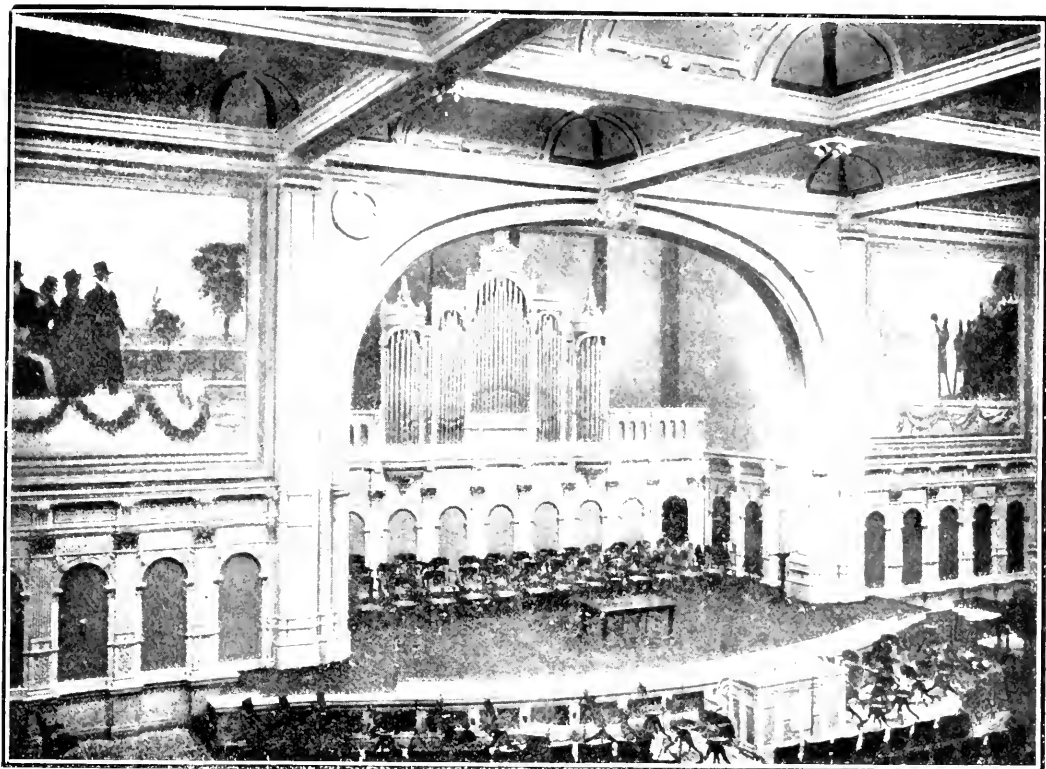
Enthusiasm
for
education in
the United
States.

Phenomenal
development
of the free
public high
school.

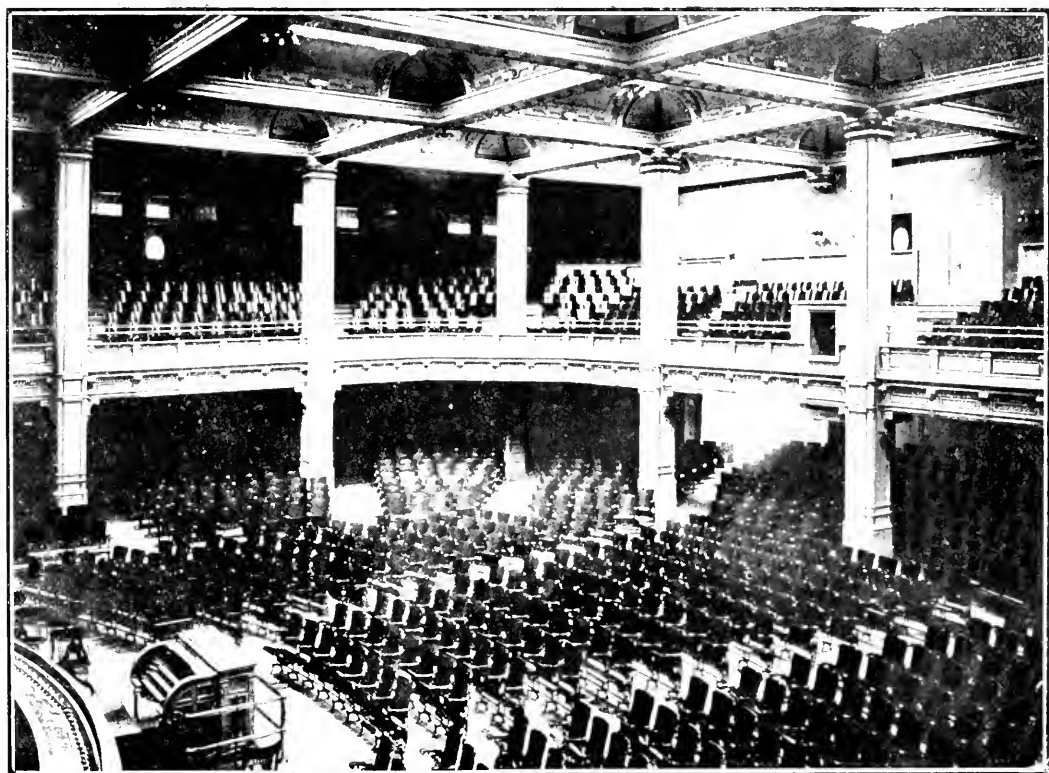
science can make them. The public schools of a town are the buildings which every one is proudest to show to visitors. Several of the high school buildings which I visited had cost from £60,000 to £80,000 to erect. In Springfield, Mass., for example, a city of 70,000 inhabitants, I found that there were, in addition to the ordinary elementary schools, two high schools, one the Central High School, accommodating 800 pupils, which cost £80,000 to build and equip; and another, the Technical High School, accommodating 600 pupils, which cost £60,000 to build. How surprising to us with our restricted views of the scope of public education are these figures, which show the development of the free public high schools of America! Let us remember, in perusing them that the number of Victorian boys and girls, out of a population of 1,237,998, who go beyond the primary school stage, is not more than 5,000, and that, at the time of writing, the continuation schools for the training of junior teachers in Victoria are being closely watched by the Association of private secondary teachers for fear that a boy or girl should manage to get a cheap secondary education under the cloak of becoming a teacher. In 1860 there were 40 free public high schools in the United States. In 1870 there were 160. In 1900 there were 6,005; and the latest figures of the United States Commissioner of Education show that there are 7,576 free public high schools, with 679,702 students. The system has not been confined to the towns, but has spread rapidly through the country districts, where the small village schools are being replaced by the consolidated high schools, the children being conveyed by an organized transport service.

Intelligent
public
appreciation
of education
in the United
States.

Professor Paul Hanus, of Harvard University, who assisted me greatly in my inquiries, writes in his book—"A Modern School"—"The faith of the American people in education is great, but they do not look with satisfaction on an investment of hundreds of millions of dollars in school property, nor do they cheerfully spend more than two hundred millions in a single year for the maintenance of schools, nor listen with approval to the unquestionable assertion that the expenditure for schools, vast as it is, is far from being adequate to meet pressing educational needs, unless they are satisfied that all their outlay, present and prospective, is, or will be, followed by satisfactory educational results, *i.e.*, by a steady growth of high-thinking and right-living, and a steady increase in the economic and political efficiency of the on-coming generation. The American people want good schools, just as they want every other public or semi-public utility to correspond to their needs, and they have been for some time, and are at this



MURAL PAINTINGS AND ORGAN.
HALL OF DE WITT CLINTON HIGH SCHOOL, MANHATTAN.



AUDITORIUM, DE WITT CLINTON HIGH SCHOOL, MANHATTAN.

moment, engaged as they never were before in scrutinizing their vast provision of public education. The public press, the daily papers, and, what is more important, the current magazines, show the closeness and the universality of the scrutiny. Several important magazines contain, nearly every issue, thoughtful papers on education, and one of them maintains a department for educational research."

There are many matters of method and of organization in connexion with American schools which I do not greatly admire, but I could not fail to be impressed with the great public enthusiasm (no lesser word will do) which exists for education. Could we, in Australia, count upon the same generous public-spirited appreciation and support, and keep at the same time the definite, purposeful, accurate methods we have developed under the influence of British educational tradition, we should develop an Australian education which would be a great factor in the making of a great and prosperous Australia.

England is the last of the great countries of the world to wake up to the fact that she must develop a truly national system of education for her people. The reasons for this delay are not hard to find. British commerce and industrial enterprise enjoyed a long start, and while such countries as Germany, France, and the United States were preparing, by education, to challenge British commercial supremacy, Britain enjoyed the results of long experience and of established connexions. The people of Great Britain did not, therefore, feel so keenly "the need in international competition of greater intelligence and wider knowledge on the part of those who have to control the new forces introduced into industry by the discoveries of science." The truth is, that Great Britain, like other nations, had to feel the pressure of political or commercial danger before she was willing to face the question of education fully. During the latter half of the nineteenth century many attempts were, however, made to build up a system of science teaching, and a system of technical schools. But there was no general conception of the need of a national scheme of education rising by well-graded steps. The Technical Instruction Act of 1889, gave the County Councils educational powers, while the Local Taxation (Customs and Excise) Act of 1890, made available considerable funds for technical and commercial education. The first result was the establishment of many elaborate technical schools that could not be filled, because there was a dearth of students adequately prepared by intermediate and secondary education for technical school courses. As soon as the impossibility of building technical schools on an elementary school

The recent
movement in
England.

Higher
grade
schools and
continuation
classes.

base became evident, a fresh impulse was given to the establishment of higher grade schools and of evening continuation classes. But, although the continuation classes of Great Britain are a great and satisfactory development, they do not adequately fill the gap between primary and technical education. The question of public secondary education had to be faced. Many eloquent warnings were given to England at the close of last century, as to the public danger which would inevitably result if a satisfactory solution of the higher education problem was not undertaken. Just before the introduction of the Education Act of 1902, Sir John Gorst, who has had a long experience in the administration of English public education, wrote in the *Nineteenth Century* :—

Sir John
Gorst's
warning.

“ Unless reform is very promptly undertaken, the English nation will be less instructed than the people of European States, of America, and even of our own colonies. . . . If it is true that the international rivalry of the future will be one of commerce and manufactures, the uninstructed nations will have to reconcile themselves to be the menial servants of the rest of the world and to perform the lower and rougher operations of modern industry ; while all those which require taste, skill, and invention will gradually fall into the hands of people who are better taught. If a race that aspires to exercise imperial influence in the world must possess knowledge as well as courage, and intelligence as well as wealth, the people of England must be content to see the Empire decline, unless other citizens of the Empire take up the task for which the lack of public instruction renders the people of England unequal. It is, therefore, no exaggeration to call the state of public instruction in England an emergency. The danger is imminent. There is no time to lose. Teachers and schools can not be created in a moment by Act of Parliament. If all the authorities in England—the people, the parents, the churches, the county and municipal councils, the Central Government—got to work this day in earnest to improve public instruction, it would be years before the improved machinery could be got into working order, and our public instruction brought up to the level of that which has, for many years, already been possessed by our commercial and industrial rivals.”

I have already, on page 7, spoken of the effect of the legislation of 1902 in building up, in England, a system of State-aided and State-controlled secondary and intermediate schools. The fact is, that, quite apart from the religious question in education, there has been a genuine revival of interest in education in England. How great this revival is, a glance at the increasing expenditures of typical progressive cities of England will show.

Education
expenditure
in English
cities and in
Melbourne.

As I write, I have before me the Estimates of the Education Committee, for the city of Leeds, for the year ending 31st March, 1908. The expenditure on public education, upon institutions wholly or partially controlled by the municipal council for a city with a population of 470,268 persons, was estimated

this year to be £356,343 8s. 11d. The amount of public money spent last year, 1906-1907, in Melbourne and suburbs, for ten miles around for a population of 526,400, was less than £200,000, including the grant for the Working Men's College, and the whole grant for the University, but excluding, as is done in the figures for Leeds, expenditure on buildings. The amount of public expenditure, by the Liverpool Education Committee, for a city of about 700,000, was for the year ended 31st March, 1906:—Elementary education, £522,829; higher education, £70,125. In this connexion it must be remembered that, of the 163 elementary schools of Liverpool, no fewer than 113 are voluntary schools, which, therefore, do not cost the public so much as the council schools. These figures are surely eloquent, and should help to show that our total State expenditure upon education, which has, for the twenty years ended 1906, averaged £725,890, is insufficient for a new and wealthy country, whose educational institutions are all practically unendowed.

I paid a most profitable visit to Wales, and was greatly interested in the organization of the intermediate and secondary schools there. Conditions in Wales resemble our own conditions more nearly, that is, there are many districts sparsely populated and difficult of access. As a result of the Welsh Intermediate Act 1889, there are now, in Wales, 97 secondary and higher elementary public schools, with 8,755 pupils for whom grants are paid.

Wales has
now a
complete
national
system.

Mr. Graham Balfour, in his book on Educational Systems, says:—

“ Fifty years ago education in Wales was at least as bad as any to be found in the whole kingdom, and the only sign of better things seemed to be a desire for knowledge, which manifested itself chiefly in the somewhat unintelligent study of the Scriptures by Sunday-school pupils of all ages. The people, however, really cared, they welcomed the opportunities offered them, and created new ones for themselves. Largely out of their weekly wages they paid for a training college, and they paid for a university college. They pressed for an Intermediate Education Act, and were fortunate enough to obtain it; they have systematized and extended their secondary schools, and they have devoted the whole of their Customs and Excise money, without exception, to education. They have attended their university colleges, and made them efficient; finally, they have procured their federation in a national University. Wales, long yoked to England as it has been, has, out of its limited material, produced the most complete organization in the country within a quarter of a century. Education elsewhere may rise to greater heights, or have a longer tradition, but as yet no other division of the kingdom has so definite an achievement to present as the intermediate and higher education of Wales.”

Enlightened
countries
have
improved
their
education in
times of
adversity :
we have
crippled ours.

I have sought to show that education, coupled with enthusiasm and public spirit, has worked wonders in the case of Germany, Denmark, and other lands, that have been roused to earnest effort by national disasters, or imminent national danger. In all of these countries, the education system has been steadily improved during times of national trouble. How different has been our course of action in Victoria! The department to be most severely retrenched during financial depression has ever been the Education Department. Nor do we make up for this retrenchment in times of prosperity. Let us take the following figures to heart :—

Average State Expenditure in Victoria upon Education of all Grades:—

For seven years, ended 1893 ...	£793,295
For seven years, ended 1900 ...	644,191
For seven years, ended 1907 ...	748,303.

Our State has developed greatly since 1890, and we have, as a people, grown steadily more prosperous, yet we spend much less upon education than we did in former years.

Industrial
education a
corollary
to
"protection."

Australia has not yet felt the pressure from without or from within which would compel a satisfactory solution of the education problem. Must we then wait till a great danger shakes us out of our apathy, or shall we not rather prepare for what is inevitable? In the endeavour to build up great manufacturing interests we have determined upon a policy of protection by tariff. Can there be any protection more efficient in the long run than a liberal system of education for the training of our workmen and managers? As our own workmen gain in taste and skill there will be among buyers less and less temptation to go outside, and a greater reliance upon the home product. Surely, too, it is a righteous demand that for every privilege we give to the workers within our tariff wall, there shall be laid upon them the duty of using all available means for acquiring the highest degree of efficiency in their work. In my view, then, we must have, as a complement to our protective tariff, a liberally-equipped system of technical schools. Nor must we make the mistake of the past, and think that these can be based upon more or less efficient primary schools. We must see what all other progressive peoples have seen, that higher education must be graded and specialized, and that each grade must rest appropriately on those grades which lead up to it. Some forms of lower technical and trade work may rest on a primary school basis only, but, as a rule, it may be

said that the kind of training given in a higher elementary or secondary school is necessary before a student can do worthy work in a school of applied art, or a technical school. If this be so, Victoria must face the question of developing a scheme for the establishment of such schools.

VI.—THE GRADING AND CO-ORDINATION OF PUBLIC EDUCATIONAL ACTIVITIES.

There is no problem in education which has engaged so much attention during recent years as the proper systematizing and linking up of the various grades in education. Comparatively little has been attempted in this direction in Victoria, owing to the fact that many rungs of the educational ladder are at present non-existent. When we, as a people, come to see more clearly what is our duty in respect of public education, we will insist, in the name of national efficiency and of true economy, that a complete scheme of public education shall be provided, in which each institution, while engaged in its own proper work, shall find its place in relation to the whole. For a national system of education must be compounded of many elements; it must meet the diverse needs of a complex national life; and, above all, it must be directed by a common national purpose. There must be room within it for the free play of individual effort, while State control keeps the general tendency in the right direction. European peoples have long ago settled this problem, and progressive cities in Great Britain have done much in recent years in the same direction.

THE ORGANIZATION OF EDUCATION IN AN ENGLISH CITY.

When in Leeds, I was much interested in the plans lately adopted by the Education Committee of the city of Leeds for providing for the necessarily varied educational needs of a large manufacturing and commercial city. The example of Leeds is valuable to us, seeing that it has a population of 470,268 persons, while that of Melbourne is 526,400. To appreciate rightly the opportunities provided for the youth of Leeds, one should first consider the opportunities, or rather the lack of opportunities, of the youth of Melbourne. If a boy leaves a Melbourne school, having successfully accomplished the primary school course, and then desires to take up evening work, he finds that there are only two public educational institutions open to him, namely, the Working Men's College, and the University. In the first of these institutions, he cannot hope to do any work of advanced character until he has undergone

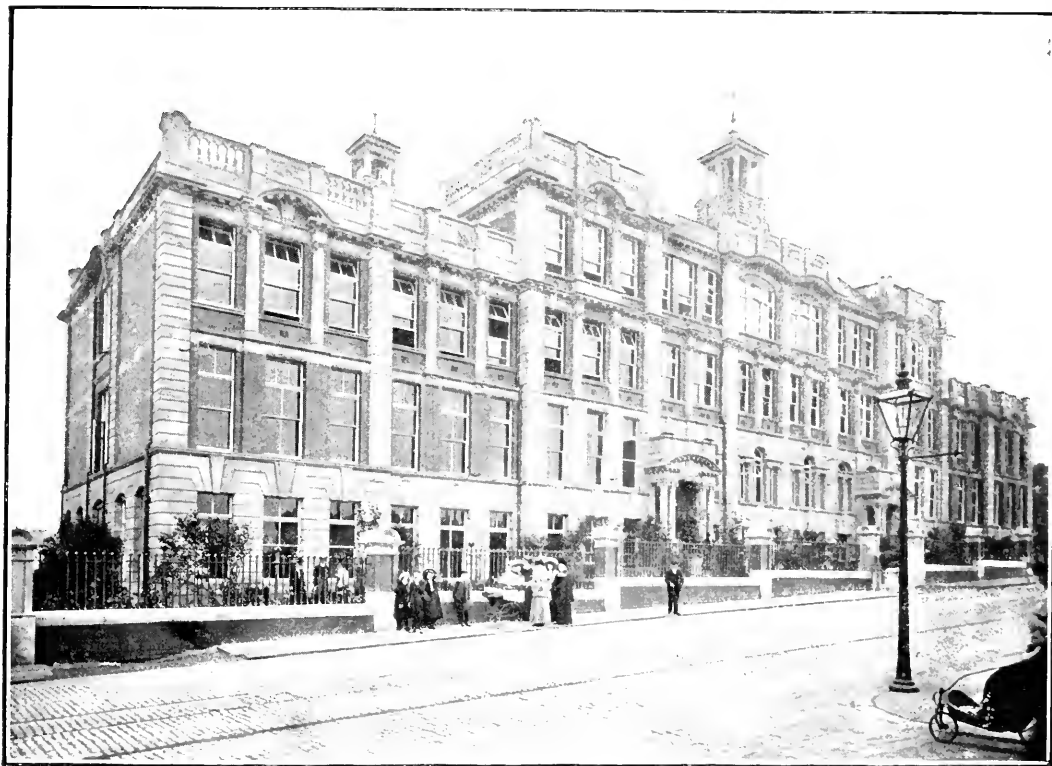
special preparatory courses, and he is shut out from study for a University degree by his lack of a secondary education. Every year there are numbers of boys discouraged from entering our technical schools, because they find that they are not sufficiently well prepared. Thousands of boys and girls in Melbourne are, every night, left wholly to their own resources, with no public encouragement to, or assistance towards, self-improvement. Many of these are engaged in occupations which teach them nothing, and, as they grow older, they are discharged to make room for cheaper labour. What is true of Melbourne is true of every Victorian town. It is no wonder that we have so many casual labourers who are almost permanently unemployed, and really unemployable. We should follow in the footsteps of Leeds, and copy its evening educational work.

How Leeds provides for evening classes of all grades.

In Leeds, there are, of course, the usual elementary and higher elementary schools for primary and higher primary education. There are six secondary schools, maintained by the City Council, and five non-maintained secondary schools. There are general mechanics' institutes and artisan schools for lower technical work, and three technical schools doing advanced technical work, and there is a young and vigorous University, strong on the technical side. During the past three years, the Education Committee of the Council has been engaged in making an exhaustive study of the needs of the city, and of the distribution of its population, so that schools of different classes may be properly allocated to the different suburbs. At the same time, the institutions wholly or partially governed by the council have been classified in four grades, and the work to be performed by the institutions in each grade has been carefully set out, in order to secure efficient interlocking, and to prevent overlapping. The organization of this evening work follows five main lines of study, and opportunity is provided in each class of work for graded courses. Thus, under the head of Technical and Technological Education and Training, the youth may begin in a preparatory evening school, where he is given a grounding in subjects fundamental to trade courses; he may then advance to one of the branch artisan schools of Grade II., and afterwards to a higher technical school of Grade III., or to one of the special industrial courses at the University. Group courses are insisted upon, and the student, therefore, instead of spending his time and energy upon isolated subjects, is encouraged to undertake a course of study in related subjects, calculated to give him an intelligent and useful grasp of the particular branch of work in which he is interested. It is claimed that a very large percentage of the students enrolled are taking complete courses of instruction.



CORRIDOR (SENIOR DIVISION), COWPER ST. COUNCIL SCHOOL, LEEDS.



MUNICIPAL HIGH SCHOOL, WEST LEEDS.
(Cost £50,000.)

The following table illustrates the above remarks :—

CONSPPECTUS OF TECHNICAL EVENING SCHOOLS—CITY OF LEEDS.

Grade.	I. Technical and Technological Education.	II. Commercial Education.	III. Art Education.	IV. Education in the Domestic Arts.	V. Training Courses for Teachers.
I.	General Evening Schools (Preparatory)	General Evening Schools (Preparatory)	General Evening Schools (Preparatory)	General Evening Schools (Preparatory Course)	Thoresby High School Preparation Courses for various examinations, and Courses in such subjects as Drawing, Manual Training, Physical Training, Singing and Elocution, and Courses of Lectures by Specialists in English, Arithmetic, &c.
II.	Mechanics' Institutes (Elementary and Intermediate) Branch Artisan Schools (Elementary)	Branch Commercial Schools (Elementary and Intermediate)	Branch Schools of Art (Elementary and Intermediate work)	Young Women's Institute (Elementary Courses)	
III.	Advanced Technical Schools	Schools of Commerce (Intermediate, Advanced and Honours)	Central School of Art (Intermediate and Advanced work)	Central Institute for Women and Girls (Intermediate and Advanced Courses)	
IV.	Special Courses for Advanced Students at the University of Leeds	Special Lecture Courses on Commercial Subjects at the University of Leeds			

I.—TECHNICAL AND TECHNOLOGICAL EDUCATION IN LEEDS.

The scheme of evening work in Leeds under this head has been worked out for persons engaged in engineering trades (including both mechanical and electrical engineering), electrical industries, building trades, leather and boot trades, clothing trades, chemical industries, mining, textile industries, printing, farriery; and follows a continuous line from the courses in general education and elementary technical instruction to advanced technical schools and the University.

Grade 1.—There are three schools open for instruction in this grade. They meet in elementary school buildings, on three evenings a week, for two hours each evening. They profess to give a thorough grounding in English, mathematics, hand-sketching and instrumental drawing, woodwork, metalwork or wood-carving, including clay-modelling. Students pay 2s. 6d. for the course, and higher fees are charged to any student who takes less than the full course. The work is designed to lead on to Grade 2 work.

Grade 2.—*Branch Artisan Schools.*—There are thirteen such schools in Leeds, which meet in elementary or secondary school buildings, on three evenings a week, for two hours each

evening. The course of instruction includes experimental mathematics, practical plane and solid geometry, English, mechanical laboratory work, metalwork (for second-year pupils). Students who take the full course pay 4s. for the course, and a higher fee is charged to those who do not take the full course.

Grade 3.—Advanced Technical Schools.—There are three of these in Leeds, and they are open every evening. Courses of instruction have been arranged for the following:—

- (i.) Engineering trades—
 - (a) Mechanical engineers.
 - (b) Electrical engineers.
- (ii.) Electrical industries—
 - (a) Wiremen.
 - (b) Telegraphists.
 - (c) Motormen.
- (iii.) Building trades—
 - (a) Carpenters and joiners.
 - (b) Bricklayers and masons.
 - (c) Plumbers.
 - (d) Painters and decorators.
 - (e) Surveyors.
 - (f) Architects.
- (iv.) Leather and boot trades—
 - (a) Boot and shoe trade.
 - (b) Leather manufacture.
- (v.) Clothing trades—
 - Tailors' cutting.
- (vi.) Chemical and related trades—
 - (a) Chemists.
 - (b) Bakers and confectioners.
 - (c) Photographers.
 - (d) Soap and candle makers.
 - (e) Gas manufacture.
 - (f) Metallurgists.
- (vii.) Mining.
- (viii.) Textile trades.
- (ix.) Printing.
- (x.) Farriery.

The fee, with some exceptions, is 7s. 6d. for a course, and higher fees are charged to students who do not take the full course.

Grade 4.—The University of Leeds.—Special courses for advanced students are held in mechanical engineering, electrical engineering, leather manufacture, mining, textile industries, and dyeing. Students attend at least six hours a week. The fee is 10s. 6d. for each group course.

II.—COMMERCIAL EDUCATION IN LEEDS.

The work in commercial education follows a continuous line from the general evening schools through the branch commercial schools to the Central School of Commerce, and ends in the University of Leeds.

Grade 1.—There are three schools of this grade open in elementary school buildings for three evenings a week for two hours each evening. The course of instruction includes English, writing, arithmetic, commercial geography, and history. The fee is 2s. 6d., with a higher fee for any student who does not take the full course.

Grade 2.—Branch Commercial Schools.—There are nine schools of grade 2, and the course of instruction has been planned to enable young persons, entering on a business career, to obtain an intelligent knowledge of the work they will be required to perform during the first few years in a business house, and to acquire an insight into home trade. The subjects of study include English (composition, writing, and language), commercial arithmetic and figuring, commercial practice, book-keeping, commercial geography and history, shorthand, and a foreign language. The fee for the course is 4s., with a higher fee for those who do not take the full course.

Grade 3.—Advanced Evening Schools of Commerce.—There are three of these schools and their courses of study are designed to provide opportunities for persons engaged in commercial life to obtain a thorough and intelligent knowledge of the subjects they require in a business career. Schools of modern languages are attached to the advanced evening schools of commerce, and at one of the schools more specialized professional courses have been arranged for bankers, accountants, auctioneers, officials, and clerks in municipal and public offices, chemists and druggists, grocers, railway officials, and clerks. The fees for courses in commercial subjects range from 5s. to 7s. 6d.

Grade 4.—The University of Leeds.—Special lecture courses on commercial subjects are given in (a) economics; (b) income and property taxes; and (c) the law of income tax.

III.—ART EDUCATION IN LEEDS.

Instruction in art in Leeds now follows a continuous line leading up to the Central School of Art. From the beginning instruction in the principles and practice of art is given, and special attention is devoted to their relation and application to industry.

Grade 1.—Preparatory Art Schools.—There are three of these for boys and eight for girls. The course of instruction, for which the fee is 2s. 6d., is designed to give an educational ground-work in general subjects, and in art study.

Grade 2.—Branch Art Schools.—There are four of these schools, and the subjects of instruction include (a) drawing of common objects in daily use, with concurrent exercises in memory drawing; (b) elementary plant form from nature and its application to elementary design, geometrical exercises with relation to design, exercises in lettering with brush and pen; (c) light and shade from casts, &c.; and (d) elementary modelling in clay.

The fee is 4s. for the course, with a higher fee for students who do not take the group course.

Grade 3.—Central School of Art.—In the central school of art there are the following branches:—

- (a) The Architectural School.
- (b) The Design School.
- (c) The Modelling School.
- (d) The Life Drawing and Painting School.
- (e) The various Craft Schools.

In conjunction with the work, equipment and instruction are provided for the following crafts:—Book-binding, cabinet-making, embroidery and lace, enamelling and jewellery, lithography, mural decoration, pottery, painters' and decorators' work, metal-work, wood and stone carving, and illustration work.

IV.—EDUCATION IN THE DOMESTIC ARTS IN LEEDS.

These courses aim at imparting a thoroughly useful knowledge of domestic and general subjects. Various schools are provided with well-equipped cookery rooms, needlework and dressmaking rooms, starching and ironing rooms, laundry, &c.

Grade 1.—General Evening Schools for Girls and Young Women.—There are eight of these schools, which meet on three evenings a week for two hours each evening. Among the sub-

jects of instruction are household accounts and correspondence, needlework, simple dressmaking, plain cookery, and the principles of home management. The fee for the course is 2s. 6d.

Grade 2.—Young Women's Institutes.—There are eleven of these schools, meeting on three evenings a week for two hours each evening. Instruction is given in plain needlework, art needlework, dressmaking, millinery, cookery, laundry, household accounts and correspondence, hygiene and home management. The fee is 4s. for the course, with a higher fee to students who do not take the group course.

Grade 3.—Central Institute for Women and Girls.—There are specially equipped work-rooms for needlework, dressmaking, millinery, cookery, starching and ironing, and science work in connexion with the domestic arts. The fee is 15s. per session.

Of course it will be understood that these evening schools are held in the ordinary day school buildings, grade 1 being held in elementary schools, grade 2 in the municipal higher grade and secondary schools, grade 3 in the technical institutes or advanced secondary schools, and grade 4 at the University. The staffs of teachers are made up from teachers of day schools, who are allowed to supplement their incomes by evening work, and in the case of specialists in trade and professional subjects from men and women who follow a trade or profession during the day.

It does not follow, therefore, that the establishment of a system of preparatory technical work in Victoria will duplicate expenditure. There is every reason why the present State school buildings should be utilized for such work. Every addition made to the equipment of the evening schools would tend to take away the reproach from our insufficiently equipped day schools. In English cities I saw higher elementary and secondary schools, in which excellent equipment for science, manual training in wood and iron, and in art subjects, was provided, and I found that much of it was obtained, in the first place, for the use of evening technical classes, and that, as the day school teachers became proficient in such subjects, they were allowed to make use of the apparatus in the day classes. In this way the evening work reacted very favorably upon the day work, and in one or two notable cases the general character of the secondary day school had been changed from that of a classical grammar school to that of a secondary school of the type of the German Ober-real schule.

Economy of
using day
school
buildings for
evening
classes.

THE ORGANIZATION OF EDUCATION IN SCOTLAND.

The schools
of Glasgow.

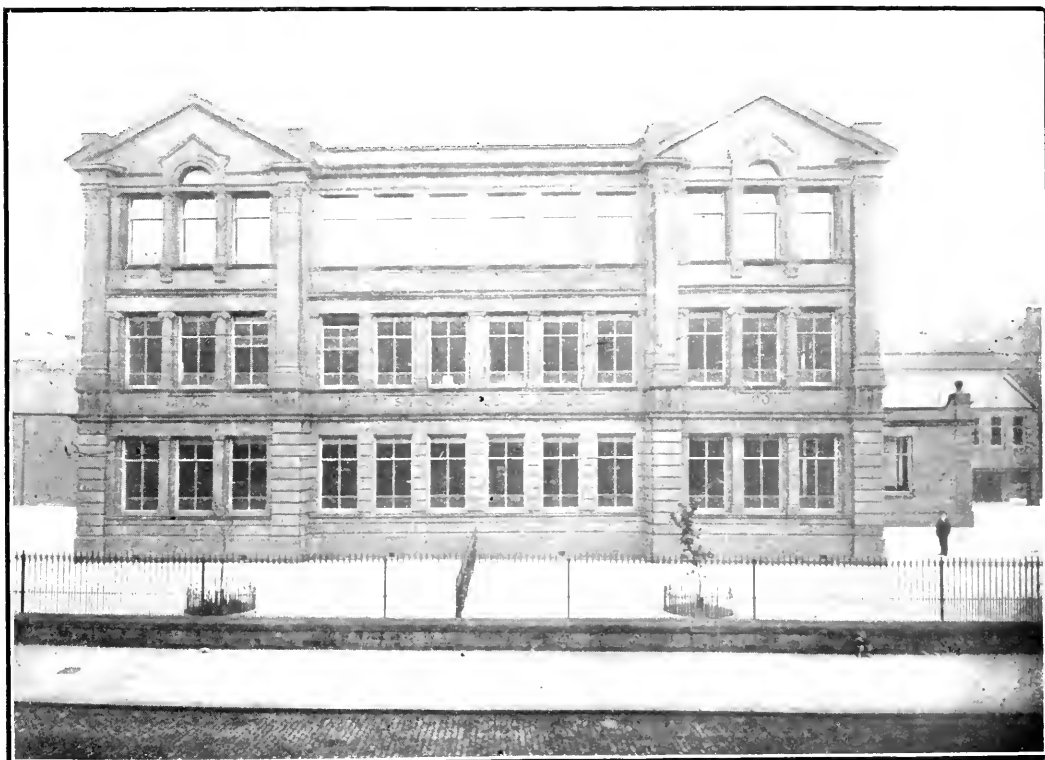
The schools which impressed me most during my tour were the elementary, the higher grade, and the secondary schools of Scotland. The opportunities which a Scotch boy or girl has are such as to make a Victorian very envious. During a week in Glasgow I had many opportunities of visiting the well-built and well-equipped schools of that city, and was rejoiced to find that the people of Glasgow offer the fullest facilities for children of all classes to make the most of the natural abilities with which they have been endowed. I conversed with people in various walks of life, and I did not hear once the reactionary sentiments with regard to popular education which any discussion of the subject calls up in Victoria. Glasgow, with a population of 617,843, has, in its elementary schools, 100,547 pupils, in its higher grade schools 2,433 pupils, and in its secondary schools 4,047 pupils, of whom all but 842 are in secondary schools which are either school board schools or endowed schools. The school buildings are immeasurably superior to those which our Education Department provides for its pupils, and they are furnished liberally with laboratories and teaching appliances. In these schools one finds pupils from all grades of society, and the instruction is very efficient. What is true of Glasgow is, generally speaking, true of Edinburgh, Aberdeen, and other centres. The Scotch Education Department has succeeded in organizing the various educational activities in Scotland, so that each strengthens and supports the whole. Three certificates are issued to pupils—(a) the Merit Certificate, *i.e.*, a leaving certificate for pupils who have passed in the full primary course, and are not proceeding to secondary day courses; (b) the Intermediate Certificate for those who are studying in the higher grade department of elementary schools, or in secondary schools, and who wish to leave school at about the age of 16, and (c) a Leaving Certificate for those who have completed a five or six years' course in secondary education, and who now intend to enter technical schools, or a university, or to go out into business life.

Merit
Certificate.

Each of these certificates has a distinct value. A boy who has passed through the infant, junior, and senior divisions of the ordinary elementary school, will, normally, between twelve and thirteen years, enter on a supplementary course, at the end of which he will receive a merit certificate, qualifying him to enter, during his apprenticeship, on Division II, or the first year of Division III, of the evening continuation classes, whence he may ultimately pass to a central technical institution of the type of the Glasgow and West of Scotland Technical College. These evening continuation classes are a very important factor



CORRIDOR, COUNCIL SCHOOL, COWPER ST., LEEDS.



BALSHAGRAY PUBLIC SCHOOL, PATRICK, GLASGOW.

in Scottish education, and recently there has been a "re-grouping of the evening classes, and a systematic effort to make the instruction which they provide bear more directly upon the industrial and commercial callings in which the pupils are engaged."

The continuation classes are grouped in four divisions—(i)—Evening Continuation classes. Preparatory classes for the completion of general elementary education; (ii.)—Classes for specialized instruction (elementary); (iii.)—Classes for specialized instruction (advanced); and (iv.)—Auxiliary classes. There are ten central institutions which give advanced technical education in technology, or agriculture, or art. These institutions have made efforts to popularize the continuation classes, and to arrange the courses in them, so that they may lead up appropriately to their own work. Thus every encouragement is given to Scotch lads who are determined to improve themselves, even though they should be forced to leave school at fourteen years of age. They may enter graded evening classes, which lead, ultimately, to the higher technical work, and so the best of them may in the end catch up to the boys who remained in higher grade and secondary schools.

I saw no schools in my tour which impressed me more than the higher grade schools of Scotland. These are, as a rule, elementary schools, with a higher elementary branch. In some cases these higher-grade schools have developed, owing to favorable locality, or the exceptional ability of their teachers, into secondary schools of an advanced type. There are at present 155 higher-grade schools, and, therefore, the facilities given to the Board school boy or girl to receive an intermediate or secondary education are, quite apart from the subsidized secondary schools, very great indeed. In the higher-grade schools, students may present themselves for the intermediate certificate. This certificate is the qualifying certificate for a junior teachership, and it also admits to Division III. of the evening continuation classes, and to classes in the advanced technical institutions. Intermediate Certificate.

There is also a special technical or commercial certificate available for pupils of higher grade schools.

The Leaving Certificate qualifies for entrance either to a central technical institution, or to the University, and is a guarantee that a pupil has gone through a full course of elementary and secondary education. The conspectus on the next page (published by the Scotch Education Department) shows, at a glance, the completeness of the arrangements for public education in Scotland. Leaving Certificate.

Lessons for
Victoria.

There are many lessons for Victoria to be gathered from this table. Various causes have conspired to force all the State schools of Victoria into a general uniformity of type. There are districts in Victoria where children are left at school up to the age of fifteen and even sixteen years. Whenever it has been proposed to meet the needs of these children by the introduction of the special subjects usually taught in secondary and higher elementary schools, there has been strong opposition from private school teachers, who complain of unfair competition. In Scotland, the Education Department has recognised three distinct types of schools, "each with a well-balanced curriculum of general education, essentially, but not exclusively, humanistic, and ending in each type with a period of consolidation and concentration on the subjects essential to that type." There is, therefore, the elementary school, with its special course for those who are expected to leave school at fourteen years, there is the intermediate school for those who will leave at about the age of sixteen years, and there is the secondary school for those who will continue their school course, and ultimately proceed to the University, or a technical institution.

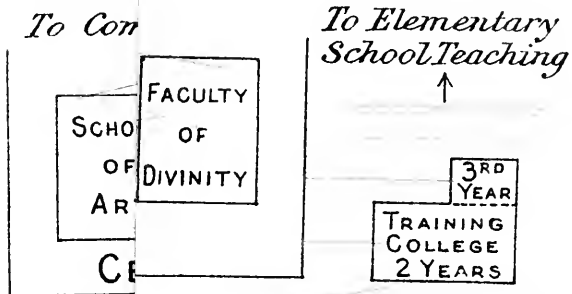
Victorian Schools should be Graded into Elementary and Higher Elementary Schools.—The Scotch system of elementary and higher grade schools has much to recommend it to Victorians. Its establishment here would settle much of the trouble as to syllabus. If a State school syllabus is to be made for all schools, without exception, it inevitably tends to become congested. The arguments in favour of the addition of necessary subjects for large sections of the pupils are too strong to allow of their exclusion, and thus the syllabus becomes too heavy. Classification of schools solves this difficulty to a great extent.

Technical
education in
Glasgow.

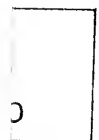
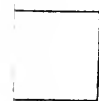
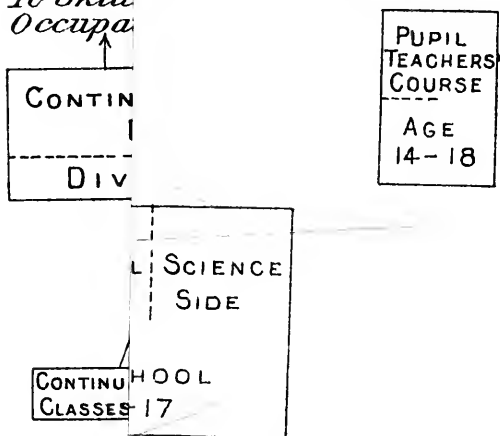
When in Glasgow, I visited two of the central technical institutions, the Glasgow School of Art, and the Glasgow and West of Scotland Technical College. The work done in these institutions is a revelation to an Australian, and it was impressed upon me, time and again, by those in charge, that the secret of the present efficiency of the technical schools is that they rest upon a basis of well-organized and efficient elementary and intermediate education. In the Glasgow School of Art I was present during the holding of the Saturday classes for elementary and higher grade teachers, and I saw work, in drawing, being done by these teachers (who, it will be remembered, are not specialists in the subject) which was certainly superior to anything I have seen in any school of art in Victoria. This is partly explained by the fact that many of these teachers have attended the classes for from five to seven years.

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To Arts, Literary & Scientific Research



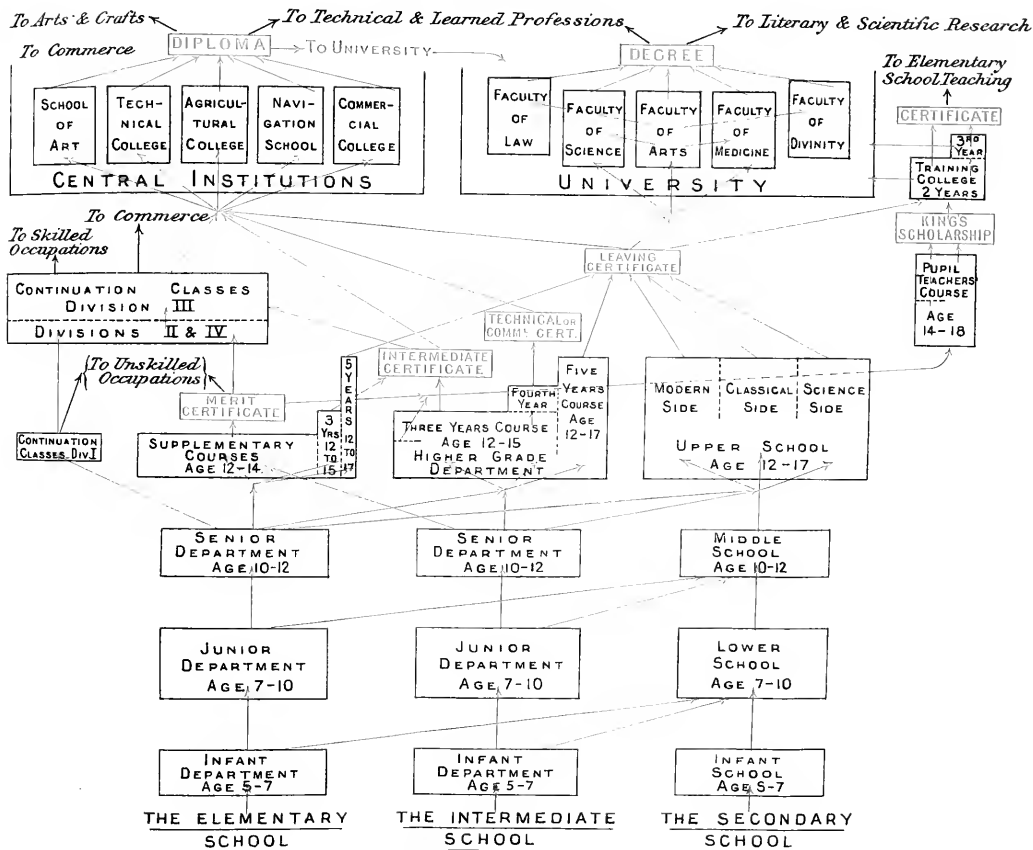
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CONSPPECTUS OF EDUCATIONAL ORGANIZATION IN SCOTLAND.



In the Glasgow and West of Scotland Technical College very advanced work is done, and it was interesting to me to be told that science graduates of the Glasgow University (the university where Lord Kelvin worked and taught), were attending the technical school for post-graduate courses in applied science.

It is interesting, too, to Victorians to know that, owing to recent changes in the law, and to determined administration on the part of school boards, the number of children who leave school below the age of fourteen years is very small. In 1905, the estimated population of Scotland between the ages of twelve and fourteen years, was 186,901; the number of scholars of twelve to fourteen years of age on the registers of all schools in Scotland, was 178,521; the number of children aged twelve to fourteen who, whether conditionally, or without conditions, were exempted from school attendance by the school boards, was 7,822. Thus, the proportion of children who do not remain at school till they are fourteen years of age is small. If such a state of things is possible in a country where there are so many families who are to be numbered amongst the very poor, we can surely insist in Victoria on a higher standard in our schools. And yet, despite the fact that a child of twelve years of age, who has passed in the compulsory subjects of the Fifth Class (a very low standard), is exempt from attendance, the Minister is besought every year by a large number of parents to grant special exemptions. At the same time, our own Government publications are advertising the fact that "the private wealth per head of the people of Victoria is £261, the third highest in the world"!

Length of
school life
in primary
schools.

As showing the trend of educational thought in Scotland, I quote the following from Professor Sadler's *Continuation Schools in Scotland*:—

Direction of
future
advance in
Scotland.

"It is significant that in the Education (Scotland) Bill, which was introduced by the Government in the session of 1907, but subsequently dropped, there was a clause which would, if enacted, have given power to school boards to make by-laws requiring the attendance at continuation classes, until the age of seventeen, of young persons not otherwise receiving a suitable education. The clause did not apply to the case of any person who would have to go more than two miles to a continuation class. The Bill further proposed that if any person should knowingly employ any young person at any time when his attendance at a continuation class was required by a local by-law, he (the employer) should be liable, on summary conviction, to a penalty not exceeding 40s., or, in the case of a second or subsequent offence, not exceeding £5. It was also provided that a like penalty might be inflicted upon any parent or guardian who, by neglecting to exercise due care, should conduce to failure on the part of a young person to attend a continuation class as required by such by-law."

The following statements taken from the report of 1906-1907 of the Committee of Council on Education in Scotland show how completely the Scotch Department is arranging for the educational needs of the community :—

The estimated population of Scotland in 1906, was 4,723,539.

The number of elementary schools, 3,125.

Average number of pupils on the registers during the year, 788,850.

Number of higher grade schools, 137.

Average number of pupils on the registers during the year, 19,319.

Continuation classes—total number of individual students paid for, 95,688.

Secondary schools claiming grant from the Scotch Education Department, 55.

Total number of scholars over twelve years of age in secondary schools, 13,663.

Central technical institutions, 10.

Number of students instructed—day students, 1,743; evening students, 11,824.

Victoria must follow Great Britain in organizing national education.

The above examples of the co-ordination of educational activities in Leeds, and in Scotland, together with those I print in other sections of this report, will serve to show how completely the work of nationalizing education is going forward. The issues depending upon national education are too many, and too serious, to allow of any grade of education being left to chance. In Great Britain, the system of "State-aided" schools allows the best of the extra-departmental institutions to still remain an important part of the national scheme. This is a very desirable course to follow here. If only we can throw aside some of our illiberal prejudices, and face the problem dispassionately, we shall solve it satisfactorily.

VII.—TECHNICAL EDUCATION.

"Technical education" is a complex matter.

In such public discussion upon education as there has been from time to time in Victoria in recent years, a great deal has been said about technical education. It might even be asserted that there has, occasionally, arisen a strong demand for so-called technical education, while there has never, except as from a voice crying in the wilderness, been any strong request for secondary or intermediate education. It is well in considering this question to remember that the term "technical education" may be made to cover education of varying grades, ranging from trade instruction of a very mechanical kind to advanced

instruction in matters involved in skilled industries, and in the conduct of great operations. The technical education of a workman of the rank and file is one thing, the technical education of a foreman or manager is another thing, and that of an employer is still another thing. Again, manipulative skill or dexterity is a most valuable possession for a workman, but technical knowledge is a greater possession for him as judged by the valuation the world places on it in wage lists. The man who has acquired highly specialized skill remains a workman, the man with great technical knowledge becomes a manager. But the greatest rewards of all come to the man who is able, by reason of a highly-developed general intelligence, to make use of men of skill and men of knowledge, and combine and direct their operations.

To provide, therefore, a scheme of technical education which shall satisfy the needs of a community such as ours, there must be various types of technical instruction, and we must take care that each of these types of instruction shall have its place in a well-ordered scheme.

Although the experience of other countries goes to show that it is not possible to develop trade-work satisfactorily for pupils who have passed through only a part, or even the whole, of a primary school course, it may be hard to demonstrate this in Victoria, where, so far, the ideals of trade education have been low. But it certainly is not possible to develop the higher side of technical instruction, unless this instruction rests upon a sound basis of intermediate or secondary education. Unfortunately the term "secondary education" has been used in Victoria in a very misleading way. To many persons, for example, it means the education given in a school which is not under the control of the Education Department, and the Teachers and Schools Registration Board found that it gave great offence to many teachers of private primary schools when it refused to register these schools as secondary schools. Again, there are others who limit the term "secondary education" to schools of grammar-school type, and they cannot see why it is necessary for the State to establish such schools as a foundation for technical education. They ask, and not without reason, whether the work of Victorian secondary schools, as at present constituted, is a fitting preparation for the work of the farmer, the grazier, the commercial man, the worker in skilled industries. They point to the over-emphasis of the purely literary subjects, and to the slight attention given to science in all but the largest schools, and to the almost total absence of manual training. I do not advocate an increase of schools of such a type. The best of them supply an important element in national education, and the work they do is valuable, and can easily

Technical education must rest on efficient intermediate and secondary education.

be justified, if necessary, on various grounds. But there are quite enough of them, and there is no occasion for the State to add to their number.

A system of State intermediate schools is needed.

What we require in our intermediate education is a more widely-spread system of intermediate schools, which shall carry pupils upward from the primary or State-school stage through appropriate subjects, such as science, practical mathematics, modern languages, drawing and manual training, and thus prepare them for technical work. The intermediate field between the primary school and the technical school should be filled by suitable higher primary or secondary schools, according as it is intended to lead on to trade work or higher technical work. These schools may be either evening schools, or day schools, or preferably both. As good examples of the system I advocate, I refer the reader to my account of the organization of the intermediate schools and classes in Leeds, page 39. There is no reason why such schools should aim at being excessively practical, and cease to care for general culture. We do not aim at training workmen only. It is men and women we are training for good citizenship, and we can and should do much to supply the culture element through a study of such subjects as English literature and history.

Existing private schools cannot supply the need.

The reasons why the existing private secondary schools cannot perform the work I indicate are not far to seek. They have been developed under an entirely different tradition. They have been dominated by examinations held by the University, and the training they give is in literary subjects mainly, as conditioned by the matriculation examination. Their courses of study have not been chosen for the purpose of leading on to technical work except so far as this work is done at the University, nor have they made any effort to link themselves to technical schools. The boys now attending the technical schools have not, save in rare instances, received their preliminary training in private secondary schools. Schools which are intended to lead into technical schools must be governed by different ideals from those which exist in our private schools, and must have a much more liberal equipment. Intermediate and secondary schools of the kind I advocate must have laboratories and workshops in charge of skilled teachers. I think I am correct in saying that in the whole of the privately-managed schools of Victoria there are not, at present, ten schools with well-equipped laboratories. How then can satisfactory instruction in science be given? Under present circumstances, this state of things must continue, for schools which have to depend upon fees alone

cannot afford to take up manual training and the teaching of science in the right way. In Switzerland, in Germany, in England, in Scotland, in Canada, and in the United States, I visited many schools of the higher elementary and secondary type, in any one of which the laboratory and workshop equipment was finer and more complete than can be found in any Victorian institution outside the University, or the Working Men's College, or a good school of mines. Yet these schools were, as a rule, free schools, maintained at public expense, for the benefit of the community as a whole. We shall have to face the provision of similar equipment, and the employment of the best available trained teachers from within and outside of the public service. In settling the question whether we shall have public education in continuation of our present State school system, we are really settling the question whether we are to have any technical education worthy of the name. One depends directly on the other.

No people has faced the problem of leading up to high-class technical education with the thoroughness of the Germans; and, although it is always dangerous in education to contemplate transplanting into any country systems which are successful in other countries, we can, at any rate, receive help from studying their methods. It must, however, always be remembered that an education system reflects the political and social ideals of a people, and that it has its roots deep down in national character.

Thoroughness
of German
education.

The Germans, many years ago, determined upon a very thoroughly organized system of public education, in which the needs of every class of worker, from the privates in the industrial army to the captains and generals of industry, should be provided for. They have, therefore, established a remarkable system of supplementary education for working people, and, although the compulsory education of German children extends to 14 years of age, they have further insisted, in most of the German States, in making this supplementary education also compulsory. "The view that technical training, following upon a good general education, has become indispensable to the industrial and commercial success of a nation, commands the unreserved assent of the German people. In no other country is this principle more consistently applied. And, therefore, as soon as it was realized that modern conditions of industry and commerce threatened to deprive young people of the educational care which was formerly applied through apprenticeship, the idea of compulsory attendance at suitable continuation schools rapidly grew in favour among the work people, and, though more slowly, among the mass of employers also. But it was not

Compulsory
continuation
classes for
elementary
technical
work.

to economic interests alone that the growth of this opinion was due. Moral considerations supported it. Fears were felt that the moral welfare of the nation would suffer if no measures were taken to counteract the deteriorating influences of town and city life during the first years of a youth's freedom from the discipline of day school life."*

In Germany no part of the education scheme is left to chance, but all is orderly and progressive. The following is a brief outline of the German system of industrial education.

BRIEF OUTLINE OF INDUSTRIAL EDUCATION IN GERMANY.

Primary
Education.

1. Attendance at day school is compulsory up to 14 years of age. There is no chance, as with us, that a child may, at the age of 12 years, be awarded an exemption certificate, and be allowed to leave school. The great mass of people use the common schools (Volksschulen). People who are well-to-do use the preparatory section of secondary schools (Realschulen and Gymnasien), instead of the Volksschulen, or they use special primary schools where the fees are somewhat higher.

Secondary
Education.

2. At the age of 10 years the pupil must definitely decide whether he will remain in the common school and receive a primary education only, or whether he will transfer to one of the secondary schools, *i.e.*, to a Realschule or to a Gymnasium. If he remains in the common school, his instruction lasts till he is 14 years of age. In the Real School a six years' course, *i.e.*, a course up to 16 years of age, is contemplated, and in a classical Gymnasium, an eight years' course, *i.e.*, a course up to 18 years of age.

Evening
Continuation
classes.

3. The lad who remains at the common school to the age of 14 years is required, on leaving the school, to attend an evening or continuation school (Fortbildungsschule) for about six hours a week for three years. These schools are established for the special purpose of continuing the instruction of young workers after they begin to earn a livelihood. An obligation to insure the regular attendance of pupils is placed upon employers and parents. When these continuation schools originated it was intended that the establishment and maintenance of them should devolve upon private organizations and local governments, but there has been a marked tendency towards centralizing all authority in State governments.

Kinds of
Continuation
classes.

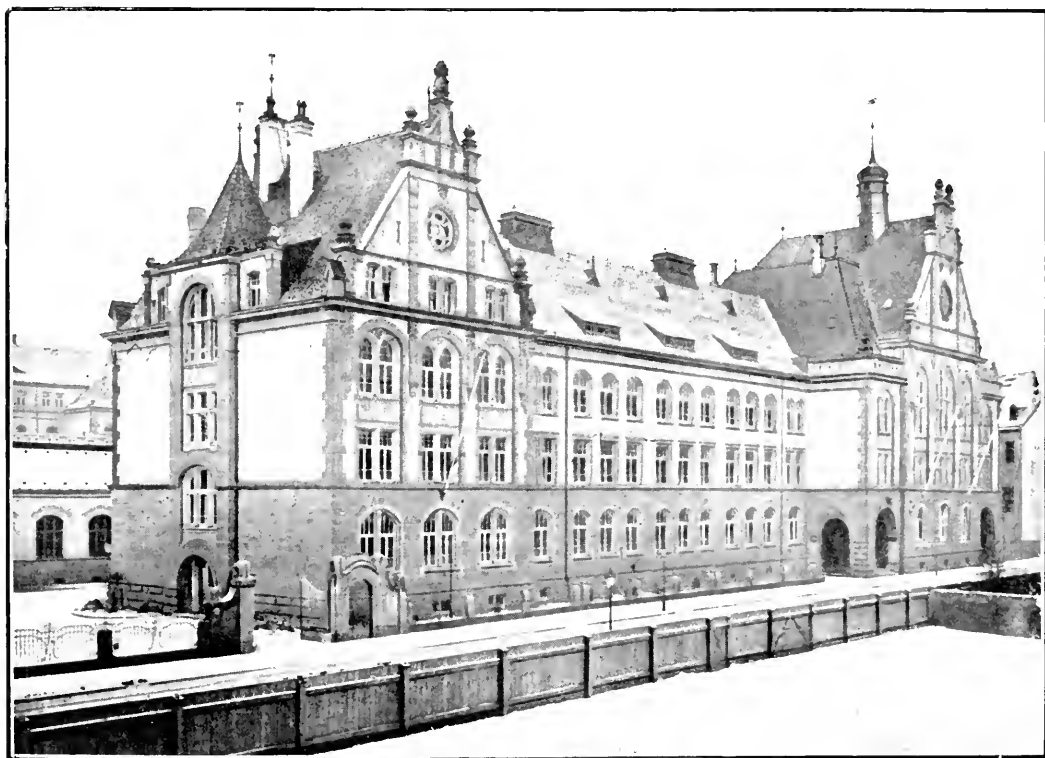
4. There are three main classes of these evening schools: (a) General continuation schools; (b) industrial continuation schools; and (c) commercial continuation schools.

In the general continuation schools the work of the common school is continued and broadened. These schools are intended

*(Professor M. E. Sadler. "Continuation Schools in England and Elsewhere.")



PUBLIC SCHOOL, BROOKLYN, U.S.A.



REALSCHULE NO. II., DRESDEN.
(Cost £38,203 13s. To accommodate 600 boys.)



DREI KÖNIGS REALGYMNASIUM, DRESDEN.
(Cost, including land, £47,187 16s. To accommodate 650 boys.)



INDUSTRIAL ART SCHOOL AND MUSEUM, DRESDEN.
(Built 1907. Cost £125,000.)

to give increase of culture, and to develop the qualities of citizenship. General continuation schools are a diminishing number, the tendency being towards schools of a more practical character.

In the industrial continuation schools the general purpose is to develop industrial efficiency. "It is to be noted that in these schools the aim is not skill, as no shop work is attempted, but only to give increased efficiency to the worker by teaching him the relation of the process to the whole industry, and the place the latter has in the activities of the community. These industrial continuation schools and the trade schools (Fachschulen) are inseparably connected with each other, and really form part of one system. In general, however, the trade school is a school where instruction is given during the day to those not at work, and where shop work or practical work is given in addition to the technical instruction. In the industrial continuation school instruction is given mostly on evenings and Sundays to working pupils, and is entirely technical (theoretical). This school is midway between the general continuation school and the trade school. In many trade schools there are, in addition to the day classes, evening and Sunday classes for apprentices and others."*

Continuation
Schools
connected
with Trade
Schools.

5. Commercial continuation schools. These are practically the same as the industrial continuation schools, but the subjects bear upon commercial life.

From the above it will be seen that the education of the German workman is very carefully planned out. The schools enumerated above are attended by pupils who remained in the common school till the age of 14 years, but older students are admitted. As a matter of fact many of the pupils are men who are well advanced in years. In Nuremberg, and in Dresden, and in Berlin, I saw men of from 20 to 40 years of age in attendance at the evening and Sunday classes of industrial continuation schools. A different set of technical schools is provided for those who attend secondary schools up to the age of 16 years or 18 years. The German secondary schools are of three types—the classical (Gymnasium), the semi-classical (Realgymnasium), and the non-classical (Realschule and Oberrealschule). The Real (non-classical) schools provide a course of from six to nine years, commencing at the age of 10. In these schools modern languages, mathematics, geography, history, science, and drawing are taught. The pupil who leaves the Real school at sixteen, intending to pursue industrial, agricultural, or commercial pursuits, finds a number of technical schools

Secondary
and
Higher
Technical
Education.

*(Special report by Arthur J. Jones, Columbia University.)

open to him. Typical schools are the *Gewerbeschulen*, higher trade schools, offering courses of from three to four years. They are chiefly schools of design, having both a day and evening department, and drawing and mathematics occupy three-fifths of the time-table. I visited such schools in Dresden, Nuremberg, and Berlin, and was especially struck by the fact that the instruction is all theoretical. There were no workshops. In this connexion I would refer you to Appendices A and B, where I print the official answers supplied to a number of questions I submitted to the authorities in Dresden and Nuremberg.

The pupil may qualify himself by work in a lower technical school for admission ultimately to one of the higher technical schools of university rank, or he may, by remaining in the *Oberrealschule* till the age of 18 or 19 years, qualify there. The *Gymnasium* is a secondary school which, in the main, trains for university courses for the learned professions. The *Realschule* and *Oberrealschule* are secondary schools, which train for industrial and commercial pursuits, and lead into the higher trade schools and the higher technical schools respectively.

The remarks above are illustrated by the table on page 57.

It is very interesting to see how thoroughly the idea of compulsory "further education" has been approved throughout the German States since Saxony introduced it in 1873. The practical difficulties of administration of such a system are, of course, minimized by the existence of elaborate machinery for compulsory military service, and by the fact that German youths are familiar with the enforcement of discipline by the State. It has been well said—"The foundation of the system lies in the fact that in Germany the individual citizen is made to feel, in a way unknown in England, his personal duty towards the organized State. That there is a bad as well as a good side to this form of national organization will be admitted, even by those who heartily indorse the German system. But the latter contend that discipline enforced by authority is necessary to the strength, and perhaps to the existence of the nation. And it is further argued that within the framework of sternly enforced national organization, there is secured for the individual a measure of economic and moral freedom which is denied to many of the victims of competition in a more individualistic society."

CONSPICUOUS OF GERMAN INDUSTRIAL EDUCATION.

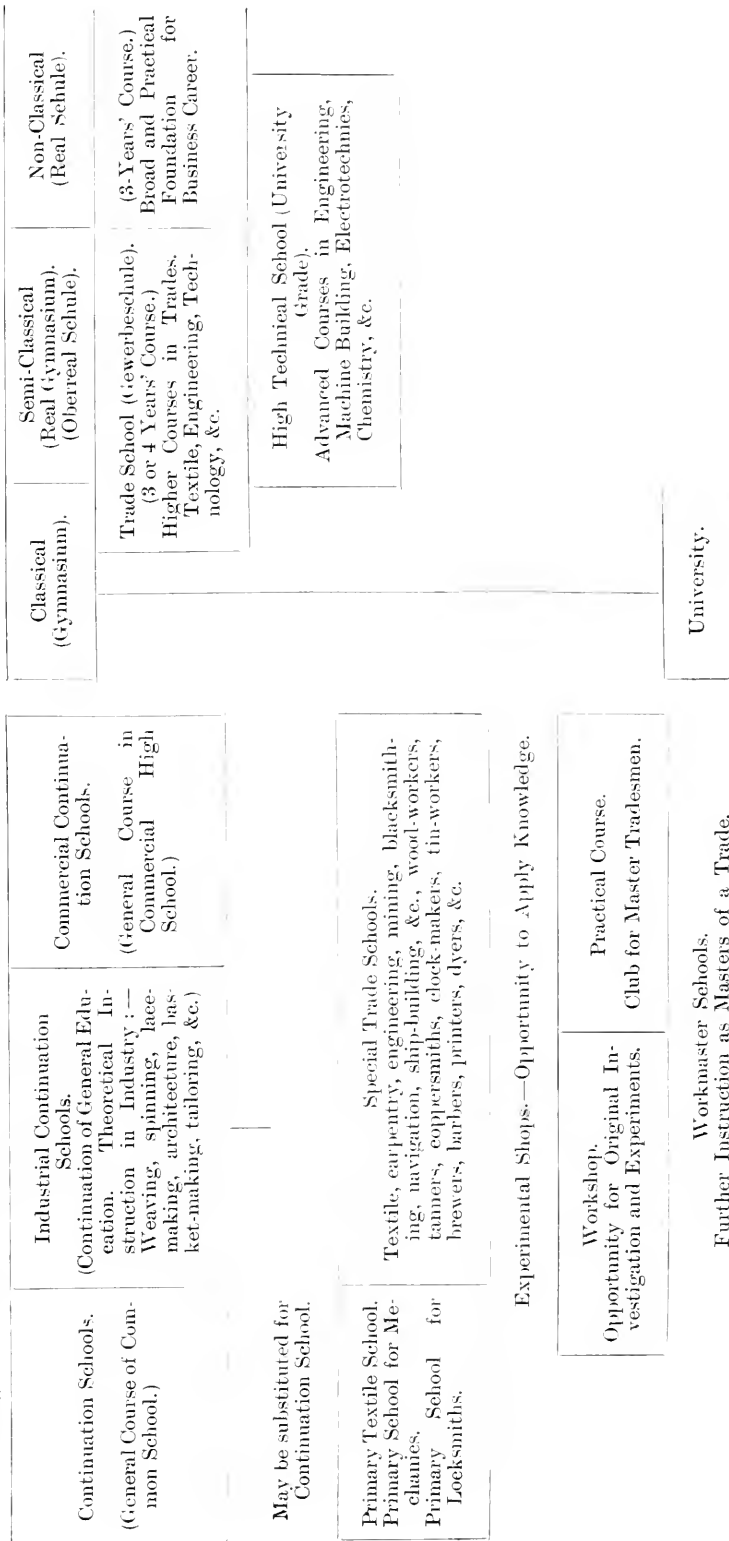
Compulsory Attendance at Day School until 14 Years of Age. Common Schools (Volksschulen) or special types of Primary School until 10 Years of Age.

At 10 Years of Age Pupil has Choice between—

Common Schools (Volksschulen)—
(Remain until 14 Years).

High Schools (Hohere Schulen)—
(6 to 9 Years' Course).

Evening Schools after 14 Years (ordinarily compulsory for 3 Years).



German
Continuation
Schools
emphasize
theoretical
work.

From the above table it will be seen how complete are the arrangements made for the workers in both skilled and unskilled trades. The different classes of continuation schools vary widely in method, character, and aim in different States, but all are designed so as to give the young worker increased efficiency as a citizen. There is no attempt in the continuation schools to teach trades or to develop manual dexterity, but the theoretical instruction is such as to give the young student technical knowledge and a good idea of the place of his trade in relation to the other activities of the community. In the continuation schools which I visited the emphasis of instruction was upon drawing in its different branches, and upon mathematics, science, and history. In no case was there an elaborate workshop equipment or arrangements for individual work on the part of the students. The arrangements partook more of the nature of an ordinary primary or secondary school. Trade work is done in the Trade schools, and attendance at these schools may satisfy the compulsory clause as to attendance at continuation schools.

The following extracts from Professor M. Sadler's recent work, *Continuation Schools in England and Elsewhere* (1908), throw additional light on the system of German industrial education in its elementary grades:—

History of
the
Continuation
School
movement.

"The continuation school system in Germany is a modern development of an old educational tradition which has had a continuous history of several centuries. Its revival is due, in two ways, to the Industrial Revolution. Fear of the economic effects of the factory system, which sprang up in England in the last decades of the eighteenth and early years of the nineteenth centuries, soon forced the master workmen of industrial Germany to increase the efficiency of their apprentices and journeymen by encouraging their attendance at continuation classes. This self-protective movement on the part of the German master-workmen, which may be dated 1830 onwards, gave a new turn to the continuation school system, and forms the historic link between its past and present phases. Secondly, in the years immediately following the Franco-German War, of 1870-71, the national genius showed itself in masterly applications of scientific method to industrial processes and organization. In order to win its way to the front rank in world-wide competition, the German people threw itself with characteristic energy into plans for extending educational opportunity. The industrial aptitudes of the workmen must, it was seen, be developed by special training, and the social evils, which arise from want of regulation of the factory system, must be averted by far-seeing local government, and by the enforcement of educational and physical discipline. Hence came encouragement from the State to systematic efforts for the establishment of continuation schools, chiefly of a technical or commercial character, and approval of plans for compulsory attendance at those schools on the part of youths during the critical years of their adolescence."

Obligations
placed upon
employers.

"A governing fact in the development of the technical continuation school in Germany is the duty which the law throws upon the employer of giving to his younger work-people the necessary time for attendance at the continuation classes which the local education authority may prescribe.

This duty is imposed by the following sections in the Imperial Law of Industry, of 1st June, 1891:—

Section 120.—Employers of labour are required to grant to those of their employes under eighteen years of age who attend a continuation school arranged by the government or by the local authority, the necessary time for school attendance, as prescribed by the authority in question. Classes are only allowed on Sundays, if they do not interfere with attendance at Divine Service.

Section 142.—By the bye-law of a district or town council, attendance at continuation schools can be made compulsory for male persons under eighteen years. The regulations necessary to enforce compulsory regular attendance at such schools may be fixed by the local authority, and the duties of pupils, parents, guardians and employers may be so defined as to ensure the regular attendance, the discipline, and the orderly behaviour of the pupils. Those pupils are relieved from the attendance at such compulsory schools who attend a guild, or "Fach" school, provided that such a school is recognised by the superior administrative authority as equivalent in status of the said continuation school.

Section 150.—A fine of 20 marks (£1), or, if this is not paid, imprisonment up to three days for every offence, is imposed upon any one contravening any of the above regulations."

"Those employers who regard their apprentices as a source of cheap labour, naturally object to the law requiring attendance at continuation schools. In several places where compulsory attendance was introduced for boys, employers of this type began, as opportunity offered, to replace their boy-apprentices by girls. This was especially the case in commercial offices. When, therefore, compulsory attendance is proposed for girls also, these employers are among the bitterest opponents of the idea. At the present time a brisk agitation is being carried on in many districts by commercial employes, and by women's organizations in favour of the compulsory attendance of girls at continuation schools in commercial or domestic subjects. There are two currents in the agitation; one is the outcome of the desire of women workers to find opportunities of improving their wage-earning capacity, the other proceeds from a widespread feeling that more should be done to train girls for the duties of the home."

As I pointed out, attendance at evening continuation schools is compulsory from fourteen to seventeen years of age, and employers are liable to fine if they do not make satisfactory arrangements to allow their employes to attend evening classes. Mr. Sadler quotes from the Decree of the Minister of Trade and Commerce, Berlin, 31st August, 1899:—

"The critics of the compulsory system further maintain that schools with voluntary attendance show better educational results. This statement is certainly wrong, and the tests lately instituted by me prove the contrary. Irregular and unpunctual attendance is a standing complaint, with nearly all the schools, when attendance is voluntary. In some instances it has happened that schools with voluntary attendance have had to waste half the time appointed for a lesson, because sufficient pupils had not arrived to make it possible to begin."

Compulsory
and
voluntary
attendance
contrasted.

"Another drawback connected with voluntary attendance which seriously impairs the success of the teaching is that pupils cannot be got to attend those classes in German and arithmetic which they need in consequence of their defective preparation. They either refuse to attend such a class, or stop away

entirely, and pretend that they are needed in workshops or offices on the days when such lessons are given. The consequence is that, even in schools with a large number of pupils, it is impossible to grade the classes in suitable forms. It is also inaccurate to say that a continuation school, with voluntary attendance, offers sufficient opportunity to all diligent young workmen to extend their knowledge. Under the voluntary system, an employer, who is opposed to the increase of educational opportunities, will, in spite of Section 120 of the Imperial Law of Industry, which compels him to grant his young men the time necessary for attendance at these schools, find ways and means to retain them. But even supposing that such unlawful means were not used to exclude diligent young men to their great detriment, the all important purpose of the continuation schools, viz., that of raising the standard of education among the masses, would thereby be disregarded. There cannot be the slightest doubt that most of the young people who leave the elementary school at fourteen years of age are neither, in knowledge nor in character, ripe to go out into life. With the loosening of the personal ties between master and workman, the danger grows that young people, after leaving the elementary school, will have to go without any further educative influence. Here the continuation school steps in with its purpose of forming the character of the young and of helping them to resist the temptations which are certain to present themselves to them in so many forms. This purpose can only be attained if the masses of the people, and not only the apprentices of certain favored industries, are brought under the influence of these schools."

The
education of
industrial
Dresden.

In order to make a comparison between the educational facilities enjoyed by people in a German city and those enjoyed by people in Melbourne, I sent a series of questions through the British Consulate to the education authorities of Dresden, a city of 520,000 people, and of Nuremberg, a city of 307,000 people. I print a full text of the answers in Appendices A and B. It will be seen from the information supplied by the Dresden authorities that, while very complete provision is made for schooling up to fourteen years of age, every boy who does not go to a higher school after leaving the folk-school must attend a continuation school for three years, that is, to the end of his seventeenth year, and even until the completion of his eighteenth year, if he was unable to reach the prescribed standard in the folk-school on attaining his fourteenth year. There are eight of these evening continuation schools maintained by the city, and two private institutions also, and there were in attendance at the date of my visit 5,860 students. In addition, there are special schools for training tradesmen, those in existence at present being schools for barbers and hairdressers, druggists, printers, butchers, innkeepers, plumbers and tinmen, pastry-cooks, chimney-sweepers, upholsterers, joiners, bootmakers, builders, smiths, bookbinders, painters, and decorators. Then, too, there is a fine Gewerbeschule (Higher Trade School) and a State industrial art school. The size and importance of this institution may be seen from the table of costs given, the Gewerbeschule costing £37,147 to build, while the State industrial art school cost £125,000. But the crown of the technical education edifice in Dresden is the higher technical school,



TECHNICAL HIGH SCHOOL, DRESDEN.



CITY GEWERBESCHULE, DRESDEN.
(Cos. £37,417. Accommodation for 1,500.)

with an enrolment of 1,500 students, at least 1,000 of whom have an entrance qualification, as a rule, higher than that demanded by our University. The technical high school has university rank, and confers the degree of Doctor of Engineering.

The magnitude and completeness of German city education is well shown in the table given on page 100. A city of 520,000 people supports 194 educational institutions, with an enrolment of 102,935 pupils, and 21,156 of these are over fourteen years of age. Melbourne with a population of 526,400 has only 939 pupils up to 18 years of age attending the Working Men's College, our only technical school in the metropolis, and receiving instruction in subsidized technical subjects.

THE CONTINUATION AND TRADE SCHOOLS OF MUNICH.

The continuation schools of Munich are deservedly famous, and I print, in Appendix C, an account of them written by Professor Paul Hanus, of Harvard University, with whom I discussed this subject. Munich had, in 1900, a population of 499,932 inhabitants; Melbourne has, at present, an estimated population of 526,400.

The following summary of the cost of the continuation schools of Munich for 1906-7, with the enrolments of pupils, shows what a German city is prepared to do for the uplifting of its youth by education. I take the figures from an article by Mr. C. E. Stockton, printed in Professor Sadler's *Continuation Schools in England and Elsewhere*.

Cost of the Continuation Schools of Munich, 1906-7, with Numbers of Pupils on the Registers.

(The totals given below do not include interest on cost of buildings.)

(1) Continuation schools for apprentices (attendance at which is compulsory)—Cost, £28,042 10s.; number of pupils, 7,333; cost per pupil, £3 16s. 6d.

(2) Schools for master workmen and journeymen (attendance at which is voluntary)—Cost £15,459; number of pupils, 2,500; cost per pupil, £6 3s. 8d.

(3) Voluntary continuation schools for girls and women (voluntary attendance, six to ten hours per week) — Cost, £3,571; number of pupils, 1,817; cost per pupil, £1 19s. 3d.

(4) The compulsory continuation schools for girls (Feiertagschulen), at which attendance for three hours a week is required from those who do not attend the schools under (3) above—Cost, £1,941; number of pupils, 7,202; cost per pupil, 5s. 4d.

(5) Thus the total cost of the continuation schools of the city of Munich for 1906-7 (excluding interest on capital expenditure) was £49,013 10s. or, including the cost of the Riemerschmid Commercial School for Women and the municipal contribution to the Women's Work School (Frauenarbeitschule), £54,613 10s.

In the same year, the State of Victoria spent, on technical education, in Melbourne, £7,217 15s. 9d., and in the whole of Victoria, £22,322 2s. 1d.

Lack of
educational
opportunity
in
Melbourne.

Contrast with the wonderfully complete organization which obtains in every German town the lack of organization and the lack of educational opportunity which we find in Melbourne. At present, there is no connecting link between the State primary schools of Victorian towns and such technical schools as we possess. Is it any wonder, therefore, that the history of these technical schools is, as a rule, one long contest with dispiriting circumstances? The Government Statist estimates that there are in Melbourne and suburbs 33,783 boys and girls between the ages of fourteen and eighteen. The great majority of these are employed in industrial occupations. There is only one technical school in Melbourne, the Working Men's College, and, at present, there are in attendance there 939 pupils between fourteen and eighteen years of age. What becomes of the remainder? Has the State no concern with either the moral well-being or the industrial efficiency of these boys? Are they not becoming inevitably recruits for the great army of casual labourers and tradesmen who do not know their work sufficiently well, and are, therefore, the first to be thrown out of employment with every fluctuation of trade? Recently I entered into conversation with a number of young men who were attending a demonstration of the unemployed at the Public Offices. The result of my conversation confirms me in the opinion I have just expressed. The following is a typical case of some half-dozen that I investigated. A.B. is at present unemployed. He claims to be a painter. He has never served an apprenticeship nor attended any systematic course of instruction in this work. He gave me the following particulars:

Inevitable
production
of untrained
casual
labourers.

A typical
casual
labourer.

Attended a school in Collingwood and obtained his exemption certificate at the age of twelve years. This certificate was then awarded on the Fourth Class standard. He soon after left school and spent his time driving round with the driver of a butcher's cart. At about fourteen years of age he was given a job in a stable of a butchering establishment. From fifteen to sixteen years of age he did odd jobs in "offices." After this, for nearly two years, he obtained casual work usually attending to horses or driving a cart. He spent one year moving about the country doing farm work. Next became an employé at a pony racing course. Afterwards got a job doing rough painting. For the past two or three years has lived on odd jobs, occasionally getting work as a rough painter.

Would it not be well to establish in every suburb evening continuation schools, in which pupils from 14 to 17 years of age would be encouraged in habits of study and self-improvement, where they would be taught such subjects as workshop mathematics, mechanical drawing, elementary science, and where they would, at set times during the week, come under the influence of school discipline? The Working Men's College should provide for youths of from sixteen years upward, and a great stimulus would be given to its work, and to the work of similar technical schools in Ballarat, Bendigo, and Geelong, if evening classes in suburban State schools were established on these lines. In this connexion, I would refer you to page 39, where I have dealt with the organization of evening work at Leeds.

Evening continuation classes would prepare for technical work

But it is not enough to provide merely for evening work. There is a large section of our people who could well afford to prolong the period of their children's education if the necessary facilities were given them, but who could not afford to pay the necessarily high fees of private secondary schools. Moreover, the tradition of these schools is to train for university examinations, and what is wanted is a school course planned more on the lines of the German Real School than on those of an English Grammar School. The continuation schools recently established for the training of junior teachers might easily be developed into schools of the type I am indicating, and would meet the needs of cities, while the agricultural high schools, if the practical side of their work is not unduly emphasized, would meet the needs of the country districts. In these agricultural high schools the division of the students' time is approximately one-third to general culture subjects, one-third to special science subjects involved in agricultural education, and one-third to manual and practical work. Secondary schools of these types, somewhat modified, would supply an undoubted need in Victoria, and would not compete unfairly with existing secondary schools, seeing that their objective would not be the same.

Intermediate and secondary day schools required.

Provision could be made in the evening continuation classes for teaching girls the domestic arts; and this would help to create a taste for house-work, and by increasing the knowledge and skill of the domestic servant would raise her status as a trained worker, and help to remove the stigma that rests on this class of work. It is in this way, more than in any other, that girls can be led to choose house-work rather than the factory-work which unfits so many of our young women for becoming good housewives and healthy mothers.

Training in domestic arts.

MOVEMENTS FOR INDUSTRIAL EDUCATION IN THE UNITED STATES.

The
Technical
High School
of the
United
States.

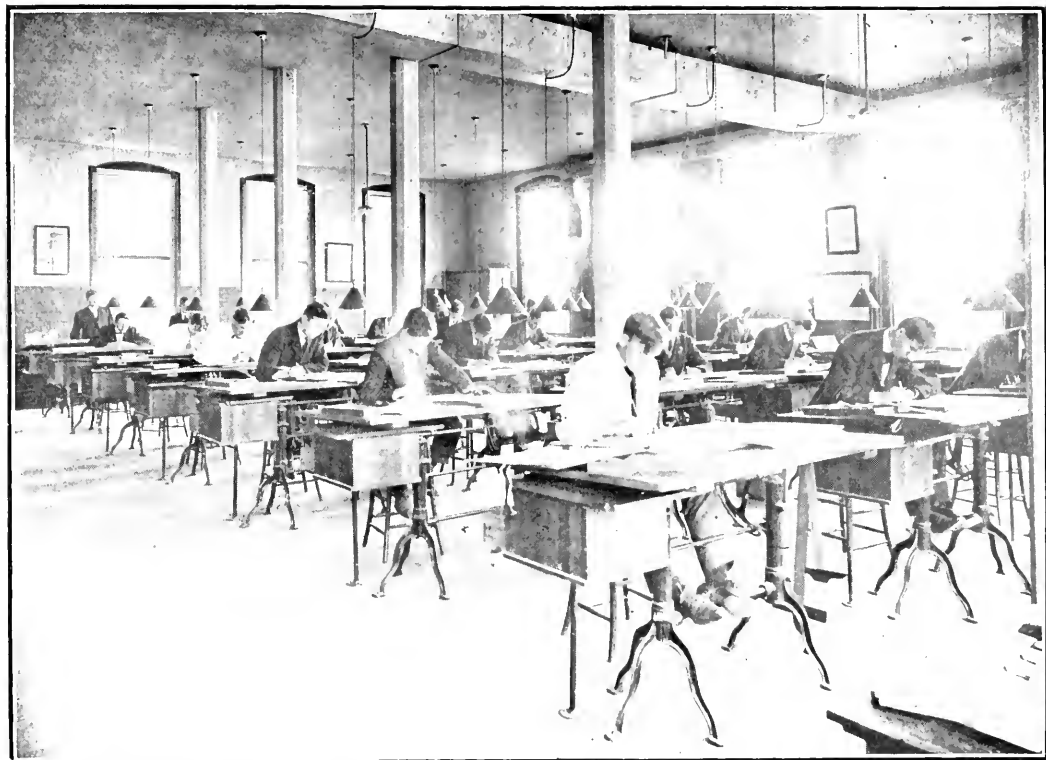
A very interesting movement is taking place in the United States in connexion with the development of high schools. A new type of high school, called the Technical High School, has been developed. In this class of school, an endeavour is made to associate a definite training in manual and industrial occupations with a training in general culture. They are not technical schools in the sense of being trade schools. The workshop training is of a general, and not of a specific, character. President Roosevelt has said—"If boys and girls are trained merely in literary accomplishments, to the total exclusion of industrial, manual, and technical training, the tendency is to unfit them for industrial work, and to make them reluctant to go into it, or unfitted to do well if they do go into it. This is a tendency which should be strenuously combated."

The
Springfield
Technical
High School.

I was much interested in a visit I paid to the Technical High School of Springfield, Massachusetts. This school cost the city about £80,000, and it is beautifully fitted up. It is primarily a high school, and not a technical school. In an account of the objects of the school, Mr. Warner, the Principal, says—"Since a large majority of the people of every community are engaged in the productive industries, and make these the basis of their life, since science and invention multiply the products of industry and extend the trade in these products every year, increasing our command of the great natural resources of material and power, creating new demands for the skilful hand and the trained intellect, it is manifestly right that the schools maintained at public expense for the education of the rising generation should put this generation in command of scientific principles, lead the way to technical knowledge and skill, and thus fit our boys and girls more easily to meet the demands of an industrial and commercial age. The school is not merely a workshop where the elements of the industrial arts and trades are taught, but a complete educational institution, in which full academic instruction is given, as well as fundamental training in the mechanic arts and in practical science. Thus the curriculum for the four years' course includes not only the various departments of science, physics, chemistry, geology, and mathematics, but history, language, philosophy, and all the departments of literary study except the ancient classics."

Practical
work at
Springfield.

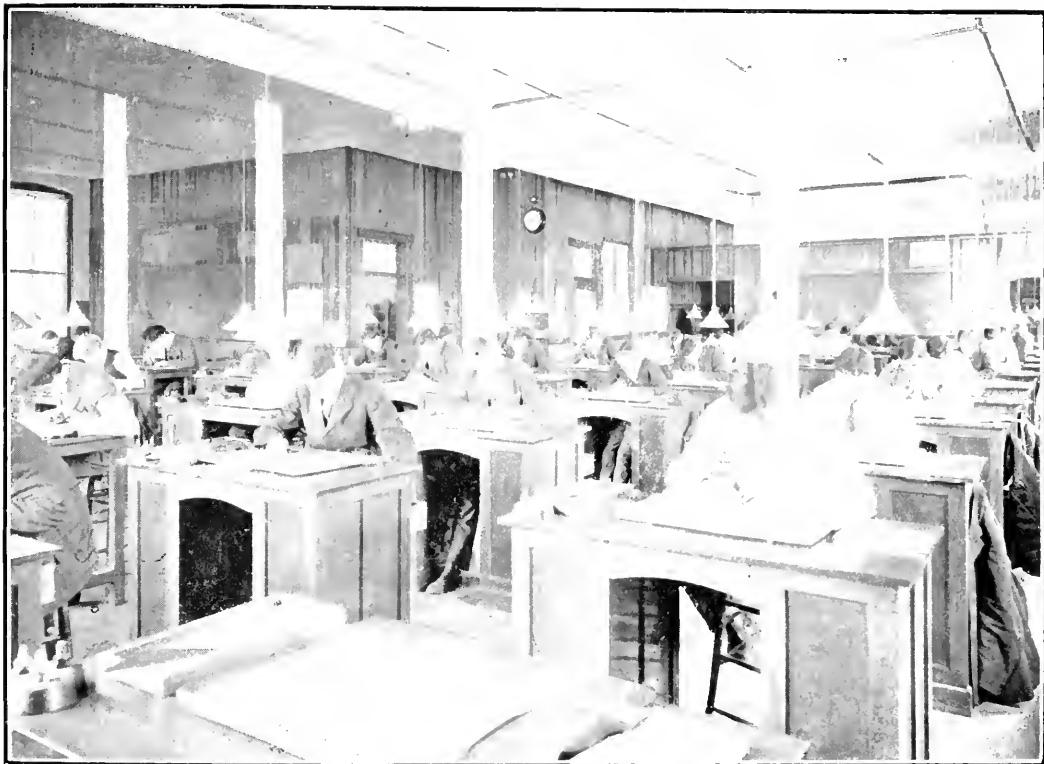
I have made arrangements for a very complete set of exhibits to be sent to Victoria from this Technical High School, for I am convinced that a demand for such instruction will grow up in Victoria. The scheme for the establishment of agricultural high schools, which the Government has lately sanctioned, is capable of being developed on approximately the same lines, in



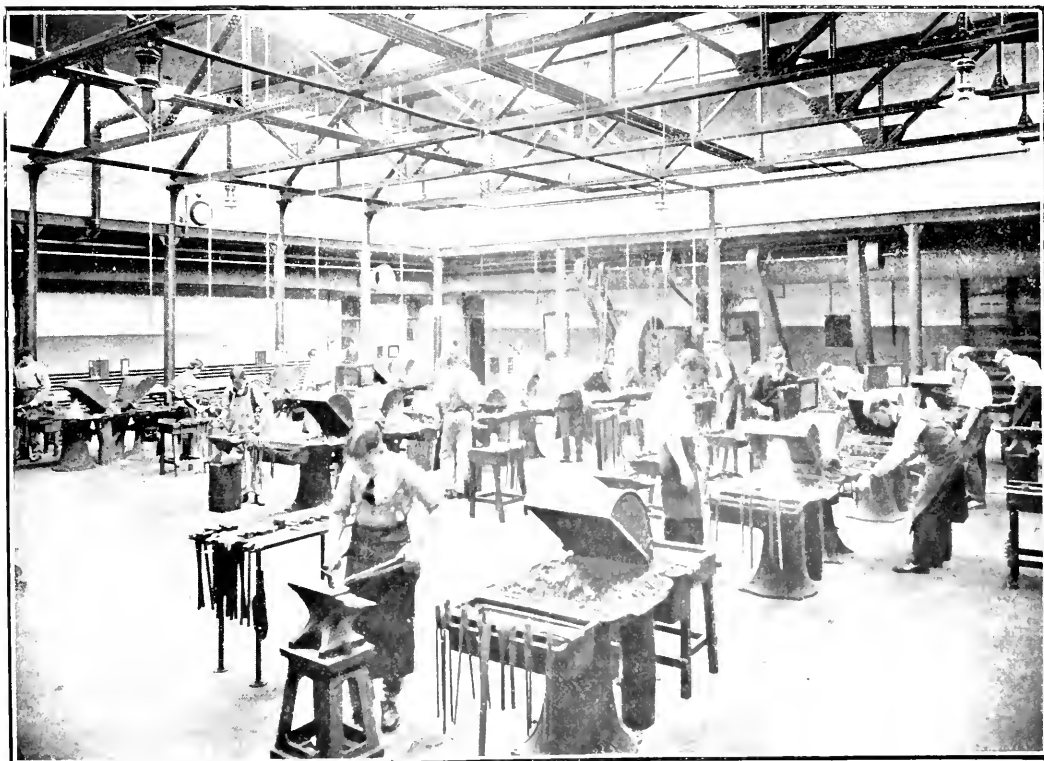
MECHANICAL DRAWING ROOM, TECHNICAL HIGH SCHOOL, SPRINGFIELD, MASSACHUSETTS.



JOINERY ROOM, TECHNICAL HIGH SCHOOL, SPRINGFIELD, MASSACHUSETTS.



DESIGNING ROOM, TECHNICAL HIGH SCHOOL, SPRINGFIELD, MASSACHUSETTS.



FORGE ROOM, TECHNICAL HIGH SCHOOL, SPRINGFIELD, MASSACHUSETTS.

regard to agriculture as the American technical high schools are in respect of industrial training. At Springfield, I saw classes engaged in mechanical drawing and design, and classes at work in the forge-room or the machine-shop, or the wood-turning room. In nearly every case, the boys were making articles or machines which had been the subject of their own designs, or the class of this year was working from the drawings made by the students of last year. It was interesting, too, to see a class of boys working laboriously, but most keenly, in the forge-shop, and to be told, as I was, that some of these boys were intended for commercial and professional pursuits, and that this training was merely part of their general education. In the prospectus of the school it is stated — "A prominent business man of this city keeps, among other souvenirs of his youth, a delicate pair of steel pin-nliers, like those used by watchmakers and jewellers for picking up and handling articles in their trade that are too small to be taken by hand. He made them when a boy, from a piece of old hoop-skirt steel, in the blacksmith shop of his native village. He was not learning the trade of the jeweller or the blacksmith at the time, nor did he become an expert machinist or manufacturer in later life, but it is probable that the training he received in his boyhood which compelled the doing with his own hands of varied work, of which the above example is only a small instance, had much to do with his future success in life."

At Menominie (Wisconsin), I visited the Stout Manual Training High School, a magnificently equipped institution presented to the town of Menominie by Senator Stout. This school is, in its way, quite as elaborate as that of Springfield. It is being largely used as a training centre for teachers of manual training and of the domestic arts. The course of study provides for general education, as well as technical knowledge and practical skill. A very interesting piece of work had just been completed before my visit. A dilapidated cottage had been bought by the school, and the young men students first repaired it and painted it on the outside. Then the women students in the domestic art side of the school, and the men students in the manual training section, were given the problem—How to decorate and furnish this house artistically and cheaply. The income of the intended inhabitant was stated, and the amount of capital he had to lay out in furniture and decoration. Each item of the work was first discussed in the art classes, schemes of colour were agreed upon, and original designs were made for every detail of the work. The women students designed the friezes and dadoes, the curtains and cushions, the little nick-nacks that were to be added for comfort or finish. The men

The Stout
Manual
Training
High School.

Interesting
practical
work.

students designed the various articles of furniture. When the designs were approved, the students executed every portion of the work. The women students chose and hung the wall-papers, made and mounted the friezes and dados, did all the necessary upholstering work, and selected any articles that required to be bought; while the men in turn made the heavy furniture, in accordance with the designs and specifications that had been mutually agreed upon. The whole experiment took about twelve months to work out, and every detail was criticised from the point of view of economy, utility, and beauty. The whole of the educational work of certain classes centred round this problem for a year. Many interesting points for discussion arose. I went carefully through the cottage as the students had left it, and was delighted at the many evidences of skill and taste which had been brought to bear in making simple and cheap comforts and conveniences for an unpretentious home.

It might be supposed from the above sketch of the American technical high school that the people of the United States ought to be satisfied that enough is being done to emphasize the value of manual and industrial work in educational courses, but it is not so. In Massachusetts, the report of a recent Commission on industrial education showed the industrial and social danger arising from the neglect to provide adequately for the industrial education of children of from fourteen to sixteen years of age. This report was the means of starting a movement for establishing special trade schools for boys and girls from fourteen to sixteen years of age. The moving spirit in the matter was Professor Paul Hanus, of Harvard, and from him I learnt much concerning the work of the Commission.

It is useful to point out that the evidence taken by the Massachusetts Commission on Industrial Education coincides with that taken recently by a Conference on the Apprenticeship Question in Victoria. Professor Hanus states—

“Boys are not wanted in most of the skilled industries until they are 16 years of age. The total result is a great number of boys and girls from 14 to 16 years of age, most of whom are at work in various kinds of juvenile occupations, in which they learn no trade, are subject to little, if any, beneficial general education, and often to much harmful education, from shifting experience and environment. Large numbers of these children would be in school if the school promised preparation for some life pursuit. These years are of little economic value to such children, and there is little increase in the economic value of most of them as time goes on. Hence, these are at present wasted years—lost to the children because of a lack of economic growth, and to the industries because the children are not fitted to satisfy the demand for trained workers by the time they are old enough to be employed in the trades.

These years, and the subsequent years, are, however, valuable for industrial education; but there is at present no agency whereby this education is provided, save here and there to a limited extent only, and then chiefly by philanthropy.

Demand for
vocational
schools in
Massa-
chusetts.

Hence the need of industrial schools to supplement the existing school system, and to meet a new educational need which has developed with the evolution of our industries and commerce. Such schools would receive pupils of fourteen or fifteen years of age who declare their intention to learn a trade; and would, therefore, be parallel to the existing public high schools, but independent of them.

Such schools must be established as independent schools, because the motive or end for which they exist, namely, *vocational training* as contrasted with *general training*, determines the value of the instruction in every detail. In order to keep such schools in close touch with the trades and with agriculture, there should be local advisory boards, including representatives of the industries concerned, employers and employes."

The people of Massachusetts acted promptly upon the report of the Commission, and a Bill embodying their recommendations passed the Legislature in 1906. A Commission on Industrial Education has been appointed, with a permanent and salaried secretary, who has had technical training of a high character and successful industrial experience. The Commission is charged with the duty of extending the investigation of methods of industrial training and of local needs. It advises and aids in the establishment of schools for industrial work. Cities and towns are empowered to raise money by rates for the establishment of these schools, and the amounts so raised are supplemented from the State revenues. The amount of supplement varies according to the extent to which the town or city has taxed itself. All moneys appropriated by the State or Municipality for the maintenance of these schools must be expended under the direction of the Commission. The schools may offer a course of instruction for four years, with evening classes for persons already engaged in trades, and with provision for part-time day attendance for apprentices. In its first annual report, the Commission states—

Work of
the Massa-
chusetts
Industrial
Commission.

"When the schools are fully established, the Commission believes the four years of instruction might be divided as follows:—

The first two years would cover general shop instruction, at least two hours per day, together with related mathematics, drawing, natural science, and English.

The work of the last two years—which could be gradually completed during a longer period in the evenings, or on the part-time system, meaning part of the time in the factory or shop and part of the time in the school during working hours, whether on the same day, or at intervals of several days, or even weeks, by pupils who were obliged to go to work at sixteen—should give the shop instruction for particular trades, and for each trade represented, the drawing, mathematics, mechanics, physical or biological science applicable to that trade; the history of that trade; civics, treated as concretely as possible; and shop and business English.

The Commission intends to provide for evening pupils; and it intends to make every effort to secure the co-operation of employers, to the end that part-time courses for apprentices may be established in the proposed schools."

It is too soon, of course, to estimate results from the Massachusetts Commission, but that such work as it proposes to do is necessary, and will produce good results, is evidenced by the success which has attended similar efforts at the Melbourne Working Men's College. But the Working Men's College can take only a fractional part of the students who should offer, and in planning new schools we should bear that in mind. In the Working Men's College preparatory classes, there are, for example, only 260 boys in attendance out of the thousands in Melbourne for whom such work would be advantageous.

The Massachusetts method of raising money for industrial education is, I think, sound. This form of education should appeal to municipalities, and it can be shown, I think, that the municipality benefits to a very great degree by the establishment of efficient technical education within its borders.

If Victoria imposed upon its municipalities a duty with respect to industrial education, and provided a representative council to control the development of this form of education, we should progress much faster than at present. Where the State pays all expenses for technical schools there is no incentive to local effort or local interest. Our experience is that too often a languishing school is kept in existence by persistent appeals for State funds.

I have dwelt upon the faith of the American people in manual training as a factor in general education. We have had the same doctrine preached consistently in Victoria, and indeed the Technical Education Commission (1899-1901) made strong recommendations upon the subject. As a result the Education Department bestirred itself, expert advice was obtained, teachers were trained, and a good beginning was made. Then came the inevitable change of policy which Victorian State Departments experience whenever a new departure involves increased expenditure. The development of manual training received a check, and became practically stationary for years. A little more has been done recently to encourage the subject, but still not nearly enough.

VIII.—THE TRAINING OF TEACHERS.

No special subject of educational administration is at present in a more interesting position in Great Britain than the question of the supply and training of teachers. I propose later on to devote a special chapter to this subject, in order to bring under notice the systems followed in the countries I have visited.

Duties of municipalities in respect of Technical Education.

Manual training in Victoria.

It may be remembered that four years ago an important change was made in the system of supplying and training teachers for the Victorian State school service, by the establishment of continuation schools for the training of junior teachers. It is now generally agreed by educational authorities, that the minimum of education for a primary school teacher should be a good secondary education; and, although, in Victoria, we have made but a beginning in this direction, we have, in my opinion, made a satisfactory beginning, justifying a further advance in the same direction. No one who has studied the courses of training in other lands can be satisfied with the low standard the Victorian system has hitherto required from its teachers, and we must, therefore, keep before us steadily the question of improving the general education of our young teachers. No fact in connexion with the training of teachers in Great Britain is more noteworthy than the growing inclination, following upon the practical abolition of the pupil teacher system, to break down the training-college system of training, in favour of a wider system in close association with secondary schools, and culminating in the University. It is gratifying to us to know that our own recent advances since 1900 have also been in this direction. The University should have a most beneficial effect upon the training of teachers, and we should look forward confidently to a time when all our primary teachers will have had, before they begin their work as teachers, a thoroughly advanced course of secondary education, while the most promising of them will ultimately have gone further, and obtained University degrees. The new system of training in Victoria was an adaptation of the existing pupil-teacher system, and its development was strictly conditioned by financial considerations; consequently, the period of attendance at a secondary school is shorter than that which obtains in Great Britain. We have provided, at present, for only a two years' course of secondary education. Moreover, we have adopted the practice of employing the junior teacher in a school at a small salary, prior to his taking up a more advanced course of study at a Training College. There are some advantages in this system, but there are many disadvantages resulting from the employment of untrained and immature students in the work of teaching. Both England and Scotland have determined, in spite of the increased cost, to abolish this remnant of the pupil-teacher system. In the near future, there will be in service in the schools of those countries, no immature apprentices, but the whole staff will consist of teachers who have had a comprehensive and extensive training. Recognising, as I do, that the supply and training of teachers is the most vital factor in an efficient education system, I trust

Primary teachers must begin with a good secondary education.

In Great Britain future teachers to be fully trained before being allowed to teach.

that it will not be long before we also are prepared to spend more money upon our training institutions, so that we shall be able to approach more nearly to the improved systems of the mother country.

Teachers
should be
educated
side by side
with other
professional
men.

One effect of improving the general education of the future teacher, will undoubtedly be to raise the status of the elementary teaching profession. The pupil-teacher system, as it existed, both in Australia and in Great Britain, took boys and girls from the classes of elementary schools, and gave them a very narrow culture, and a very restricted view of their professional work, and so it did not attract to the teaching service the best material for making teachers, nor did it tend to raise the teaching service in the estimation of the public. The new movement in the training of teachers is all in the direction of a more liberal culture, and a wider outlook, and, undoubtedly, good results will accrue from the practice of educating future teachers side by side with those who are studying for other liberal professions. It is not a good thing to segregate in pupil-teacher schools and training colleges, a body of young people who have had the same past training, who look forward to the same conditions of work, and who, generally, are drawn from the same grade of society. It is a much better plan to let the education of young teachers advance step by step in close touch with the general education of the community. It may be argued that this view is a condemnation of the system lately adopted in Victoria, of establishing special continuation schools for the training of junior teachers. It is, to some extent, but it must be pointed out that in Victoria, there is no system of secondary schools, supervised and directed by public authority, as in Great Britain. It is essential that the secondary education of the young teacher shall be conducted in schools whose administration is beyond question, whose methods are approved, and whose equipment is adequate. When a satisfactory system of secondary schools, under public authority, is developed in Victoria, I shall be very glad to see the existing schools for the training of junior teachers cease their special work, and become ordinary secondary schools with a training department. Existing secondary schools, under private control, might well be utilized also if they associate a training department with their general work.

Training
college
students
should be
University
students
and not
"Training
College
students
attending the
University."

The same remark applies to the Training College, so far as it is an institution for providing secondary and higher general education. I should like to see this work removed as far as possible to the University, so that the Training College might develop more fully on the scientific and practical side of training. In the future, then, in my opinion, the University should attend to the culture subjects involved in the training of

teachers, while the Training College, with its special staff, and special advantages of practising schools, and other equipment, should provide a much more thorough training in practical teaching than it can at present. During the past two years many improvements have been made in the practical course at the Training College, and the institution has been provided with specially staffed practising schools. More, nevertheless, must be done in this direction to meet the needs of the institution. In this connexion, however, I would remark that the difficulty of providing satisfactory practising schools is not confined to Victoria, but is met with in every country I visited.

New problems in connexion with the training of teachers have arisen owing to the operation of the Registration of Teachers and Schools Act. It is now incumbent on all who desire to take up the work of teaching to undergo a course of training. As a result, the departmental institutions must be expected to develop greatly in the near future. Already there is a large number of students not connected with the State school service, who are entering the Training College, either as students for the University Diploma of Education, or the Trained Teacher's Certificate, or the Kindergarten Certificate of the Education Department. These students have special needs which the Training College is endeavouring to satisfy. Since they come from an entirely different environment from that of the State school students in the college, and have somewhat different ideals of their future work, their influence on the college work is distinctly good, both as regards the lectures, and their association with the students. The lecturers have now to take into account the different environment under which private school teachers work, and their lectures have, therefore, to be much broader in character, and less dogmatic, while the students of both classes learn from association, one with the other, to take a much more liberal view of problems arising out of educational practice.

The Victorian
Training
College must
be greatly
developed

In order to supply a suitable training for the secondary teacher, the University has established a Diploma of Education. The Training College plays an important part in the work for this diploma. As, however, the college was staffed at a time when the needs of State primary teachers alone were to be considered, there is need at present to take into account this newer work. Masters of method to direct practical work in various special departments of secondary education are needed, and a "secondary" school should be established as a practising school. The Faculty of Arts of the University controls the practical work of the candidates for the Diploma of Education, and I am of opinion that we should bring this

A "Faculty"
to advise on
the training
of teachers
should be
established.

Faculty into touch with the general work of the Training College as fully as possible. I hope, in the near future, to go further, and form an advisory council on matters affecting the training of all teachers, on lines similar to those of the Provincial Committees which now regulate the training of teachers in Scotland. When we bring to our counsels the best influences of the University, the outside secondary schools, and the Education Department, we shall, I hope, develop courses of training which will produce a really fine type of teacher.

The pupil teacher system is now obsolete in progressive countries.

I know that in Victoria many of our teachers, and some of our inspectors, have an exaggerated opinion of the benefits of the pupil-teacher system, under which they themselves were trained. Undoubtedly, this system did good work in its day, and the teachers who survived the great strain which it imposed upon them during their apprenticeship acquired great power in practical teaching within a very definite and restricted area; but we must not be blind to the fact that outside Australia all the countries that adopted the pupil-teacher system have now abandoned it in favour of one which gives fair conditions to the young teacher, and which must provide, in the end, a trained teacher of larger culture and greater individuality, and with more advanced power of doing his work. The teacher now aimed at by all progressive countries is one to whom a greater scope for individuality and initiative can be allowed than is possible under the pupil-teacher system. If we desire to lift the teaching service to a better position among skilled employments, we must escape from the evils of the pupil-teacher system.

Good salaries for trained teachers is the best incentive to young students.

The pupil-teacher system tempted boys and girls into the service with the bait of an immediate salary, small, perhaps, but better on the whole than that of many other employments offering. Parents were satisfied with the small salary and the prospect of continued education. The great majority did not look forward and satisfy themselves as to the meagre salary paid to the trained teacher and as to the slight chances of promotion. Now, if Victoria decides upon establishing a system of intermediate and secondary schools, it should be possible, as it is in New South Wales, to attract into the service a sufficient number of boys and girls who have already gone through a secondary course of general education. The attraction offered should not be salary and training as a pupil teacher, but rather a good salary as a trained teacher. Teaching should ultimately rank with other professions, and those who desire to be teachers should be prepared to make sacrifices to obtain training in the hope of future reward, in the same way as do medical students or engineering students. The elementary school teacher will never come to his own, and achieve a worthy place in society, so

long as he is first coddled through a narrow training at the State expense, with his feeling of independence sapped by maintenance allowances, and then treated as a dependent by being paid an unworthy salary for his work. The case of the poor and promising student can be met by a system of scholarships, or by a system of advances to be repaid out of future salary. The movement in Great Britain is in the direction I have indicated. Whether we are able to follow depends upon our decision to establish secondary schools.

IX.—A COUNCIL OF EDUCATION.

In the final report of the Royal Commission on Technical Education (1899-1901), a Commission which faced the facts of national education fairly and took the best evidence obtainable in Victoria, there is an important recommendation for the establishment of a Council of Education. It was suggested that this council should be an honorary body, representative of the great educational interests and also of the great industrial activities of the State. Its duty would be to study and sift educational problems, and advise the Minister on matters affecting the general development of a policy of national education. Such councils exist in other countries, and help to bring about among the various agencies a harmony and co-operation which are absent in Victoria. They are the best safeguard against ill-advised faddism on the one hand and reactionary administration on the other. In the well-known Bryce Commission Report on Secondary Education in England, 1895, a very full recommendation was made for the establishment of a similar consultative council, a recommendation since acted upon by the Government with excellent effect. It is pointed out by the Commission—"We do not advocate such a council on the ground that it will relieve a Minister of responsibility, for we conceive that the responsibility, both for general policy and for the control of administrative details, ought to be his and his alone." The value of such a Council would lie in the fact that a body of men expert in their work, looking at each problem from diverse points of view, could give advice disinterestedly and fearlessly in a way in which no official or officials, however able or courageous, could do. We have only to review the history of the Victorian Education Department since 1892 to see what scope there would have been for such a Council of Education, even in the restricted field in which the Department has so far worked. If we are, as I believe we are, on the eve of great advances in the development of national education, it is all the more necessary that we should have such a council to advise us as to the right lines of advance. During the past five years the effort of the Department has been mainly concerned in undoing

the mischief that was caused by the ill-considered retrenchment of 1893-5. Experience has shown that our savings were made at great expense, and that in 1908 we are paying dearly for our shortsightedness. Some of the remarks of the Victorian Technical Education Commission are so much to the point that I make no apology for quoting them freely :—

“ One of the great problems confronting us in Victoria is how to stimulate sufficient general interest in education so as to secure continuous effective criticism, which is the essential condition of vitality. Policies of retrenchment, brought into operation through political exigencies, have been pursued, to the great detriment of the educational system, without any danger signals being held out warning the community of the mischief being done. Experience proves that it is not reasonable to expect permanent officials of a department to publicly protest against a policy determined on by their political head. In fact, the policy determined on must be carried out by those officials, whatever their own views may be, in such a spirit as to warrant the public in the belief that they are heartily in accord with it.”

“ It is doubtless true that there is a feeling of unrest in the community as to our condition, and a vague recognition of the fact that we are lagging behind the world-movement in educational reform. But no means exist for educating public opinion as to the extent of our deficiencies or the nature and true direction of desirable progress.”

“ When one compares the almost total absence of discussion on educational subjects in Victoria with the position these subjects occupy in the literature and life and legislation of England and America (not to speak of Europe), it becomes apparent that the first condition of progress is to establish some healthy agencies of continuous vigorous criticism. The mere force of uninstructed public opinion has proved quite insufficient for the purpose to be achieved, and the work of occasional commissions of inquiry on the subject cannot be sufficient.”

“ We regard the creation of the council which we suggest as the most effective means of educating and awakening the community to what is required. If properly constituted, it will be a voice of authority. It will not only make it apparent that the greatest of all national resources are the faculties and characters of our children, but it will continuously and fearlessly direct attention to all shortcomings in the training of our people, and will enable the community at all times to compare the instruction provided by our schools with what is afforded in other countries. We do not think that we are cherishing a vain hope in feeling that the labours of the council would speedily be supplemented by a forcibly awakened interest of a very large section of the community. We are only a handful of people, with a very limited leisured class, and so much of the energy of the people is necessarily devoted to the work of building up the colony in its material sense, and in developing its material resources, that it is not to be wondered at if, in the question of mental culture, we have not continuously, as a people, kept alive to the world-wide development during the last twenty years. At the same time, it is believed that it would not be a task of the greatest difficulty to create, maintain, and extend a healthy public interest in these matters, an interest which is essential to progress, and the absence of which largely accounts for our present unsatisfactory condition.”

“ There is no guarantee that Ministers of the Crown will be trained and enthusiastic educationists. Experience also shows that the operation of the public service system does not provide for initiative, or a zeal for progress, within the departments dealing with education. Movement, when it does occur, is spasmodic, and often neither intelligent nor continuous; and at present

the community is powerless, through want of independent, authoritative, and courageously-expressed information and criticism as to defects. The council would provide this. It would assist the Minister, who cannot be expected to be an expert. It would eventually bring about a sympathetic and intelligent attitude on the part of the permanent officials, inspectors, and teachers towards education. No antagonism need be feared between a body like this and a responsible Minister, whose administration would be so greatly benefited by its labours. Human nature being what it is, it would be natural for public men to move forward to the consummation of reform indorsed and applauded by the most forcible factor of public opinion."

Had the recommendation of the Technical Education Commission been acted upon, and a council created, I think the history of the past seven years would have been different. The spasm of interest in education which the work of the Commission evoked in 1900 resulted in the reorganization of the Education Department and the appointment of a Director of Education, who was to be given opportunity for educational advance. But at this point the movement for organizing a scheme of national education stopped short, consequent upon a change of government, and the public mind lapsed into its accustomed apathy towards education. There are not wanting signs to-day that another temporary display of interest is coming. We are waking up to the fact that our school buildings are faulty, that our teachers' residences are unworthy of a great Department, and that many of our teachers are much underpaid. But a national education system cannot be built up by a series of un-coordinated spasmodic efforts. Our people should see clearly where they desire to go, and how it is possible to get there. These things being determined, we should act accordingly. A Council of Education would stand for continuity of policy, and for broad liberal views in education. Its reports to the Minister would be the best means of keeping popular opinion intelligent and well informed.

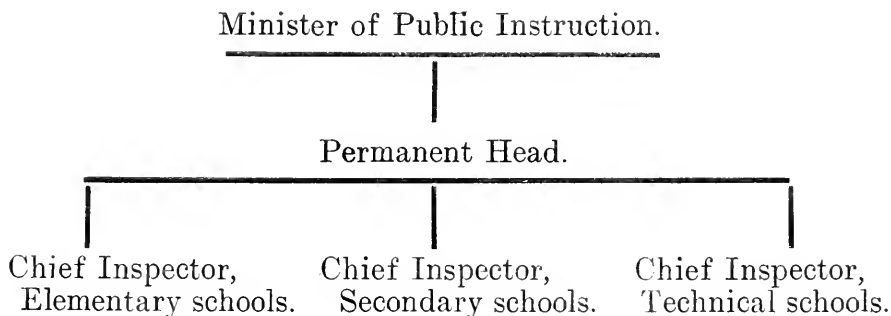
Evidence of
spasmodic
interest in
education.

Such a council in Victoria should not be large, but should be thoroughly representative. Sub-committees should deal with industrial education and secondary education respectively. Into each of these sub-committees, experts could be co-opted, so that the best advice on matters of detail could be forthcoming. The sub-committee of the council dealing with secondary education could fairly be intrusted with the functions of the present Registration Board. The sub-committee dealing with industrial education, working along the lines of the Massachusetts Industrial Education Commission (see page 66), could give valuable assistance in developing a graded scheme of technical work, linking the primary schools, through evening and day continuation classes, to the technical schools.

An
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education.

A Council
essential if
a full
scheme of
national
education is
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upon.

In my view, the establishment of a Council of Education is necessary if our educational development is to proceed. No man, however able or well-informed, can be held responsible for advising on all grades of education, and their due co-ordination; but the Minister, and the permanent head of the Education Department, could together formulate a policy after consultation with such a Council. If we face the problem of the supply of additional facilities for higher education, distinct branches of the Education Department must be formed, the working details of each branch being supervised by a special expert officer. Thus, we should undoubtedly have an expert organizer and inspector of technical work, and an expert chief inspector for secondary work. Each of these men should have had successful experience in these grades of education. Such an organization might be shown thus—



That Victoria must build up under State control a complex and complete education system is, I think, inevitable. We must at all hazards prevent such a system from becoming narrow in its outlook and mechanical in its administration. It must not, therefore, be left solely to the guidance of officials, however well selected these may be. An Advisory Council of Education, charged with the duty of reporting biennially upon the state of education to the Minister for the information of Parliament, would be a valuable aid to a progressive Department, and a corrective to ill-considered and hasty action, whether such action is in a forward or a backward direction. National education should be the resultant of many forces acting freely. Arguing from practice in other lands, it is certain, I think, that State funds must ultimately be provided for every grade of education. Let us then, as we go forward in the work of making our education system a national one throughout, provide for the fullest expression of liberal opinion. In doing so, we but follow the best precedents of the old world.

X.—WHAT NEW SOUTH WALES IS DOING.

In 1902, the Government of New South Wales sent out two commissioners, Messrs. Knibbs and Turner, to inquire into education in Europe and America, and these gentlemen furnished a very exhaustive and valuable report. Since that time the New South Wales Education Department has developed rapidly, and important changes have been made, which will have far-reaching effects, in the near future. It is interesting to note that a similar movement for educational reform began in Victoria somewhat earlier than in New South Wales, but, like so many Victorian movements for the betterment of education, it was but a spasm. Public interest in the report of the Technical Education Commission was maintained for a few months only, and a reconstructed Education Department was allowed to work on without adequate financial support, with the result that several new departures in education, which were begun hopefully enough, were soon practically abandoned. The course followed in New South Wales has been very different. In that State educational reform has been taken in hand earnestly, and the Government has recognised that the necessary changes to bring about efficiency would cost money, and, therefore, the votes have been steadily increased, until now the total sum spent on education in New South Wales is little short of £1,000,000 per annum.

The movements for reform in New South Wales and in Victoria contrasted.

In Victoria educational reform has been limited to what can be done by administration in securing better work from teachers and pupils through improvements in courses of study and more adequate and skilful supervision and training. Victoria has, in my judgment, made very satisfactory progress in bettering the quality of the work done in existing schools, but she has not paid for the improvement, and she has not done nearly enough in providing for intermediate and secondary education.

Secondary education in New South Wales has never been left as in Victoria to private enterprise only, for in that State provision was made in the Education Act for what were called "Superior Public Schools," intended to supply a higher elementary education. Naturally, some of these schools have, under favorable circumstances, developed into secondary schools of a good type. In addition to the 185 Superior Public Schools, 5 High Schools are maintained by the Education Department. Now while there are in Victoria, as I have shown, only about 5,000 boys and girls in the whole of our State who receive instruction beyond the primary standard, it is claimed by the Director of Education of New South Wales, that in the schools of his Department alone "the number of pupils receiving instruction beyond a primary course is 8,510." This number is

New South Wales provides for intermediate and secondary education.

over and above those who attend the private and public secondary schools of the State. In order that I might indicate the position accurately, I obtained the following memorandum from Mr. P. Board, Under-Secretary and Director of Education, New South Wales:—

NEW SOUTH WALES.

DEPARTMENT OF PUBLIC INSTRUCTION.

20th March, 1908.

Education of a type higher than primary is represented in this State by the High Schools and the Superior Public Schools, the latter including "District" Schools.

The High Schools are five in number, and have 908 pupils enrolled. These schools are organized to provide four-year courses, leading from the Primary Schools to the University. Two of them are for boys, two for girls, and in one, boys and girls are taught together. These schools are also used as Preparatory Schools for boys and girls who desire to enter the Teachers' College at about the age of seventeen or eighteen.

The Superior Public Schools are 185 in number, and are really Primary Schools, with Higher Primary "tops." The necessary condition for declaring a Public School "Superior," is that there shall be at least twenty pupils who have completed the fifth class; that is, the Primary Course of Instruction. Such a school is organized with a "top" consisting of a Sixth and a Seventh Class, with a course of work extending over two years. The length of the course differentiates these from the High School, and the nature of the work is of the Higher Primary rather than of the secondary type, inasmuch as it takes account of the pupil who has to leave school at the age of fifteen or sixteen years. These schools fill an important and necessary place by supplying a continued education to the pupils who enter into various employments at the age of sixteen. In the Sixth and Seventh Classes of these schools there are now enrolled 8,994 pupils.

"District Schools" are Superior Public Schools of a special type. They are specially designed to provide secondary education in important country towns, so that boys and girls, who can remain at school to the age of seventeen, may receive the advanced education, which, otherwise, they would be obliged to travel some distance from home in order to obtain. These District Schools are now 23 in number, distributed over the chief country towns. They are specially staffed, the head master being in most cases a University graduate, holding a First-class Certificate as a teacher, and assistants being provided, each of whom takes the subjects in which he or she has

shown special qualifications. The curriculum includes, besides the ordinary school subjects, Geometry, Algebra, Science, Latin, and French. The range of the instruction enables students to matriculate at the University. At each District School provision is being made for the teaching of elementary science and for manual training, by the erection of rooms for the purpose. These schools fill an important place in preparing students for admission to the Teachers' College. Such students are admitted by a competitive examination, fixed at a standard about equal to the end of a Sixth-class course, and are required to attend for two years at a District School. At the end of that time they compete for admission to the Teachers' College. There are, in the various District Schools and High Schools, usually from 250 to 300 students of this class.

The District School is practically the High School of the country district, fulfilling the dual function of the Higher Primary School for the pupil who must leave school at fifteen, and of the Secondary School for the pupil who can remain at school to the age of seventeen years.

Education in all Superior Public Schools, inclusive of District Schools, is free. In High Schools a fee of three guineas per quarter is charged, but a liberal system of scholarships and bursaries provides free places for a large number of pupils. Under regulations about to be brought into force, 100 scholarships and 72 bursaries, tenable for three years at a High School, will be awarded annually.

P. BOARD,

Under-Secretary and Director of Education.

The following figures are interesting as showing what monetary sacrifices the people of New South Wales are prepared to make for their public education. Mr. Board reports:—
“The following amounts were spent from the votes of this Department last year (1907):—

Education
expenditures
of New
South Wales,
Victoria, and
New Zealand
compared.

(a) Primary Education, £909,349.

(b) Secondary Education (High Schools only), two in Sydney, two in Maitland, and one in Newcastle, £12,945.

(The amounts spent in Superior Public Schools and higher primary sections of Primary Schools are not kept apart, and are included in the first heading (a).)

(c) Technical Education, £48,723.

(d) University Education, £13,500—made up of £10,000 statutory endowment, £2,000 towards evening lectures, including University extension lectures,

and £1,500 for scientific apparatus. The private benefactions of the Sydney University amount to £473,768, which has accumulated by investment to £541,118."

State
expenditure
in Victoria.

The corresponding figures for Victoria are—

- (a) Primary Education, £665,403.
- (b) Secondary Education (exhibitions, scholarships, and agricultural high schools), £5,874.
- (c) Technical Education, £22,322.
- (d) University Education, £21,000.

It should be observed that in the expenditure upon primary education for Victoria the sum of £87,642 paid as retiring allowances to teachers who have left the service is not included, as no such sum appears in the figures for New South Wales. The disparity between the amounts available for the work of primary education in Victoria and New South Wales is therefore greater by this larger sum.

State
expenditure
in New
Zealand.

In order to make a clear comparison between the State expenditures upon education in New South Wales, Victoria, and New Zealand, I have obtained from Mr. G. Hogben, Inspector-General, New Zealand, the following official statement, which should be compared with the figures above:—

Education Department, New Zealand.
24th April, 1908.

EXPENDITURE—1906-7

(Compiled from Table No. 7, page 8, E1, 1907.)

		£	s.	d.
Primary Education*	...	708,723	17	6
Secondary Education	...	64,528	2	10
Technical Education	...	67,554	6	7
University Education	...	40,416	5	7

*Does not include the amount provided for salaries of the staffs of the secondary classes of District High Schools. The amount is included under the heading of "Secondary Education."

The matter is more clearly put in the accompanying diagram

DIAGRAM SHOWING STATE EXPENDITURES (NEW ZEALAND, AND VICTORIA)

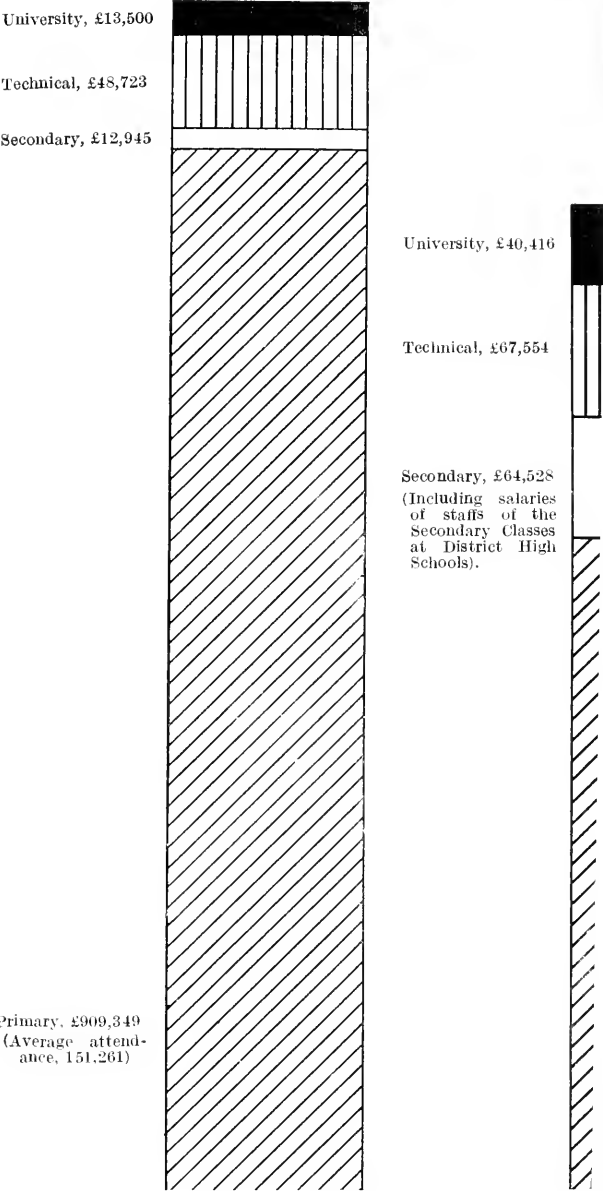
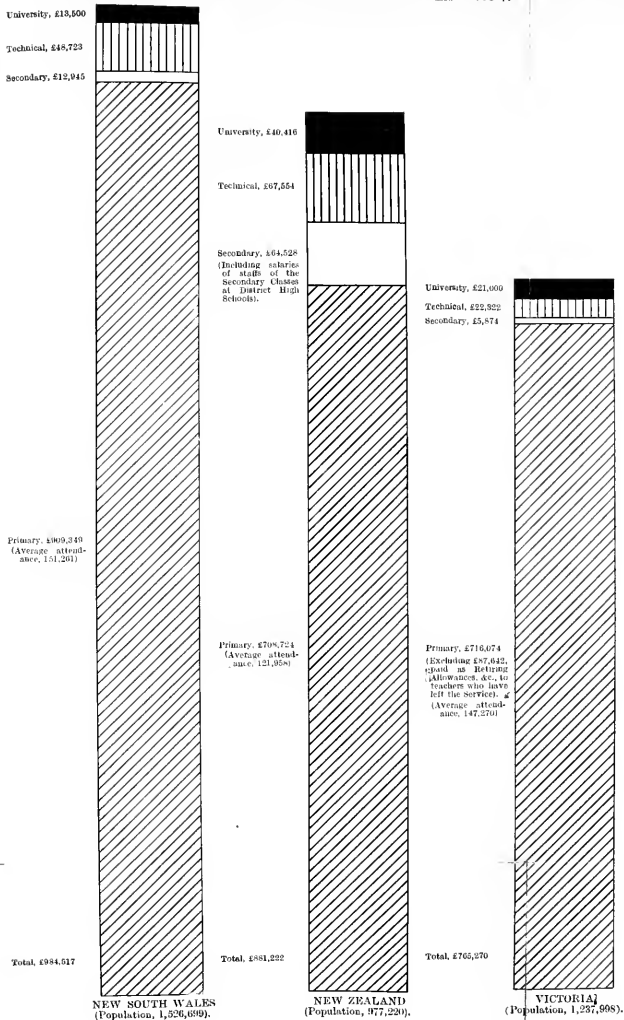


DIAGRAM SHOWING STATE EXPENDITURES ON EDUCATION IN NEW SOUTH WALES,
NEW ZEALAND, AND VICTORIA DURING THE YEAR 1906-7.



XI.—WHAT NEW ZEALAND IS DOING.

In June, 1904, I presented a report on "Some Aspects of Education in New Zealand," where I outlined at some length the methods of organization obtaining there. I would here, again, emphasize the fact that while Victoria does so little comparatively for intermediate and secondary education, New Zealand has, for many years, provided handsomely for this work. In the last annual report of the New Zealand Education Department, 1907, it is stated:—

New Zealand provides liberally for secondary and higher primary education.

"At the end of 1906 the secondary schools giving free tuition to duly qualified pupils, and receiving grants therefor under section 87 of the Education Act, numbered 23, as against 21 for the previous year. The total number of pupils on the roll of these schools was 3,261, and of this total 2,435 (1,324 boys and 1,111 girls), or 76 per cent. of the roll-number, were given free places under the regulations for free places at a mean average cost to the Treasury of £8 17s. 4d. per pupil; the approximate annual rate as determined on the payments for the last term of the year being £21,240. In 1905 the number of such free pupils was 1,906, and the approximate annual rate £16,414, with a mean capitation of £8 14s. 4d. per pupil. There is thus a very substantial increase to be noted in the grant of free places under this heading, with an approximate increase in capitation payments of £4,826. In addition, free tuition was given to 335 holders of scholarships or exhibitions granted by these schools, by Boards of Education (in some circumstances), or by endowed secondary schools not coming under the conditions, making the total number of free places held at secondary schools 2,770, as against 2,265 for 1905."

"Further, however, in reckoning the amount of free secondary education in the colony there has to be included an almost equal number of pupils in attendance at the secondary classes of district high schools. As shown below, there were on the roll of the secondary departments of these schools 2,594 pupils who had passed through the elementary school course, and were in receipt of secondary instruction, not differing materially in character from the instruction given in the secondary schools. All but a comparatively small number of these were free pupils within the meaning of the regulations for free places, and a number still nearer in approach to the complete enrolment actually received free tuition at a total cost in salaries of £18,484, and an average annual cost per pupil enrolled of £7 2s. 7d."

“The number of district high schools in operation at the end of 1906 was 61, as against 59 for 1905, and 52 for 1904. In the secondary departments of these schools the teachers employed, apart from the principals, who may or may not have taken part in the secondary instruction, but whose added responsibility is in all cases recognised by some increment of salary, numbered 99, and the number of pupils in attendance was 2,594.”

XII.—A CHAPTER OF RECOMMENDATIONS.

Our existing system must be more liberally treated.

In making recommendations, I have endeavoured to suggest only such courses of action as are practicable at present, or in the near future. I have not outlined an ideal scheme involving huge sums of money, merely because older and more populous, and more wealthy communities have developed such schemes. I have remembered that we are a young community, and a comparatively small handful of people, but I have not forgotten that we are a well-to-do people, and an ambitious people, and that a well-devised and efficiently administered scheme of education is an essential of our true progress and prosperity. Last year our education vote for all grades of public education, and including £87,642 for pensions to past teachers, was £782,717. It is as well to record here my opinion that we cannot provide permanently for our existing educational organization with this vote. Our primary school system is being held together with difficulty, owing, as I have so often pointed out, to the very poor salaries we pay to our teachers, and to the slight hope of promotion held out to them. Whether my recommendations with regard to intermediate, secondary, and technical education are carried out or not, a fairly large sum must be provided if we are to maintain our State school system at its normal efficiency.

As an indication of what should be provided, I may mention that the cost of instruction is now £100,000 a year less than it was in 1890-1891. The “cost of instruction” is made up of all the moneys paid to teachers in salaries and necessary allowances. The average attendance is now 147,270, and the work done is more elaborate.

Before extending our system we must increase the salaries of our teachers.

Whatever the superstructure of higher education which we may ultimately raise, it must be based on widespread primary education, and the efficiency of primary education is a first condition of the efficiency of higher education. No system, however well directed and organized, can rise higher than the ability of the rank and file of its workers allows. If, then, an apathetic, a short-sighted, or a penurious community does not attract to its service men and women capable of doing work of

the highest kind, the schools of that community are sure to lack true efficiency. Therefore, before we consider necessary advances in completing our educational organization, our first duty is to make fair provision for the teachers at present in our service, and thus continue to attract good material.

DISTRICT SCHOOLS.

I have advocated as the first important change in our existing educational organization the establishment of higher elementary schools, *i.e.*, the establishment of District Schools consisting of the present elementary school, with a secondary or higher elementary "top" to it.

District
higher
Elementary
Schools
recommended

It does not follow that the institution of higher elementary work will lead to an independent increase in cost. We must, as I have said, increase the annual expenditure on our existing school system; but one condition of this increase should be a differentiation of the work of the schools, so that this higher elementary work could be introduced in District Schools. At the present time we have many pupils qualified for this work in attendance at our schools, and we have a fair number of qualified teachers. It should be easily possible to proclaim District Schools as higher elementary schools, and to appoint to the charge of the senior classes of these schools specially qualified teachers. The increase in cost of instruction per pupil in these schools need not be very great. There would, however, undoubtedly, be an increase in the number of pupils of from thirteen years to sixteen years of age remaining for higher elementary work. Increase under this head would surely be amply justified. As drawing, manual training, cookery, and science teaching would necessarily form important subjects in District Schools, expenditure in equipping suitable rooms must be anticipated. But as against this expenditure, it must be remembered that these schools can be made to play an important part in evening continuation classes, and as feeders to our larger technical schools, and as training classes for our future teachers. The experience of Leeds (p. 45) is that the double utilization of buildings and equipment is practicable, and benefits both the day and the evening work.

It is difficult to say what the cost of establishing a system of District Schools of higher elementary type would ultimately be, but the experience of New South Wales is interesting. That State has a population of 1,566,980, while that of Victoria is 1,258,140. The cost of primary education for 1907 in New South Wales was £909,349. This included the whole cost of the ordinary primary schools, and also the cost of 185 Superior

District Schools for higher elementary work. We should necessarily have to proceed slowly in developing such a system, for we have not the teachers necessary for a sudden development. If the amount now allotted to the Department for "cost of instruction" were increased to the amount at which it stood in 1891-1892, a very good beginning could be made. This involves an increase of £107,882.

Such District Schools would do much to bridge over the gap now existing between the State schools and the technical schools, and even the University. Many problems in connexion with the present course of study in State schools would be solved by the division of schools into elementary and district schools. The addition of special class rooms for manual training, drawing, and science would add greatly to the efficiency of our buildings. Evening continuation classes for elementary technical work are at once practicable when such schools are established.

Evening
Continuation
Classes a
necessity.

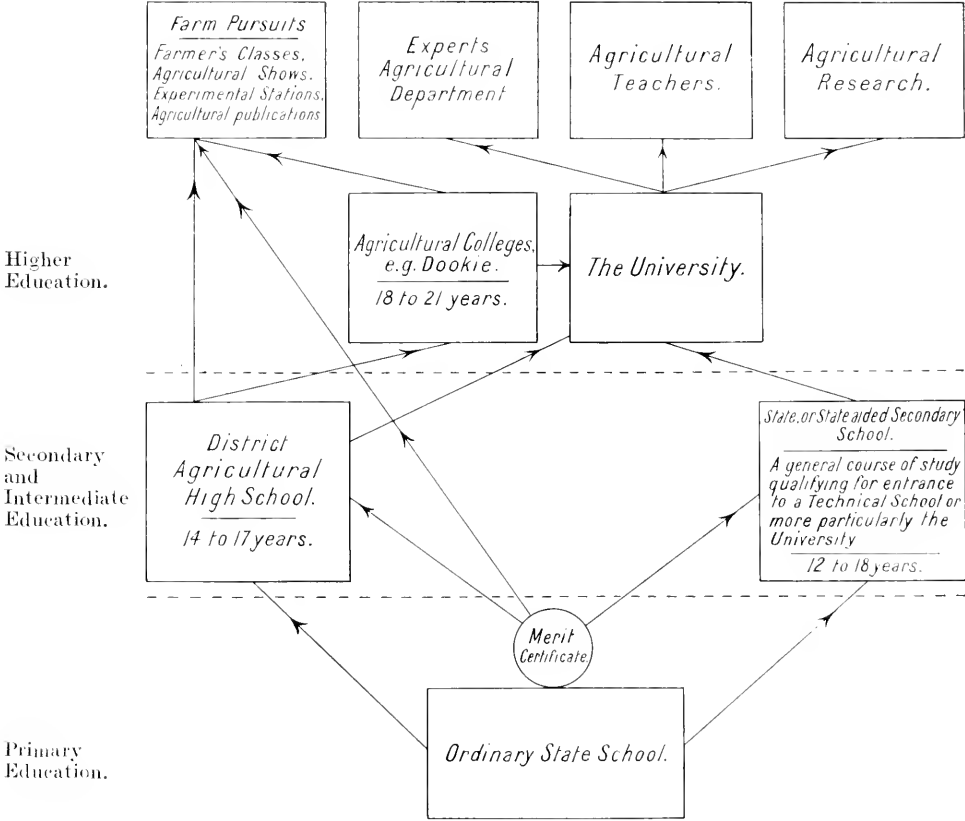
I have emphasized in other parts of my report the great need there is for providing evening instruction of a character designed to lead up to higher technical work. I am sure that no one who realizes how many boys and girls in our centres of population have their evenings free, with no obligation or direct incentive to mental improvement, can be satisfied that this state of things is for the well-being of the community. There has been much advocacy of so-called technical education. Every section of my report goes to show that in other countries evening and day continuation classes are a necessary step to this higher work. Let us then cease to utter parrot cries about "technical education," and take a first practical step towards a reality.

DISTRICT AGRICULTURAL HIGH SCHOOLS.

Agricultural
High Schools
are more
elaborate and
specialized
District
Schools.

Closely connected with the establishment of District Schools of a higher elementary character is the establishment of District Agricultural High Schools. We have made a beginning in this respect at Sale and at Warrnambool, and our experience so far has been distinctly satisfactory. In my opinion, a number of these schools should be established in appropriate provincial centres. They should provide a three-years' course of instruction, and should lead up to agricultural colleges on the one hand, or to the University on the other. But whether the education of its students is continued or not, the school should give boys and girls a sound intermediate education, and skill and knowledge and interest in farm affairs. The course of study in these schools has, up to the present, been so arranged that the students spend about one-third of their time in studying subjects of general culture (English,

CONSPECTUS OF PROPOSED SCHEME OF AGRICULTURAL EDUCATION.



history, modern languages, and the like), about a third of their time in the study of practical mathematics and the sciences underlying agriculture, and about a third of their time in manual training and in work on the school farm. The Agricultural High Schools are not designed to turn out farmers, but to provide such an education as will enable a boy ultimately to become an educated, intelligent, practical farmer. A farmer can, through his District Agricultural High School, give his boy an advanced education that does not wean him away from his father's interests and pursuits.

SECONDARY EDUCATION.

During the thirty-five years which have elapsed since the passing of the Education Act, secondary education has been left almost wholly to private enterprise. A number of excellent secondary schools have been developed. Naturally, most of these have been established in the larger centres of population only. A very great and very necessary assistance to secondary education would be given if the Education Department were allowed to arrange for a number of free places for qualified pupils in approved secondary schools by paying a fixed sum to the authorities of the school. In New Zealand, this system of assisting secondary schools and, at the same time, popularizing secondary education has been introduced with good results. It involves merely an extension of the present scholarship system, but, in the interests of secondary education, the schools should be paid for each free place a fee more nearly approximating the average cost of instruction in the school. At present, the value of a State-school scholarship does not adequately remunerate the secondary school authorities. With the establishment of a large number of free places for a full course of secondary education in the large centres of population, and with the establishment of District Schools, giving a higher elementary education in day and evening classes, the needs of our large cities, Melbourne, Ballarat, Bendigo, and Geelong, could be met for the present. Towns of lesser importance could be provided for by the establishment of District Schools, of State secondary schools, or by the Agricultural High Schools above referred to. In making arrangements for examinations for nomination to "free places," the claims of all children in the State should be considered. Care should be taken that the conditions of competition are such as to give country and town candidates their fair share of opportunity, and that all sections of the community participate in the benefits accruing from this expenditure of public money. I have no doubt that with the necessary amendments of the Public Service Acts a number of the teachers who

A system of "free places" in Secondary Schools advocated.

Vested
interests of
private
school
teachers.

are now conducting private secondary schools efficiently could be incorporated into a service of State secondary teachers, to their own and to the State's benefit. And here I should like to say emphatically that if in the public interest it is decided that the Department shall undertake higher elementary and secondary education, this should be done in such a way that existing private school teachers do not suffer hardship. A general system of higher elementary and secondary education will take years to develop, and, although the Education Department has a fair number of teachers who could be profitably employed in this work, it would undoubtedly be necessary before long to bring in outside teachers. Any determination, therefore, to undertake the work of higher elementary and secondary education must be accompanied by the removal of the restriction contained in the Public Service Acts against the employment of qualified persons outside the State service.

Inspection of
Secondary
Schools.

The establishment of this branch of education raises the question of inspection of secondary schools, and undoubtedly this question will have to be settled by the appointment of inspectors specially qualified for this work. A beginning has been made by the promise of the Premier to provide for the Education Department an inspector of secondary schools who will perform necessary work for the Teachers and Schools Registration Board. If a more general system of scholarships and "free places" is adopted, and if work of a higher character is attempted in District Schools, qualified specialists must be engaged to supervise the work.

In working out the details of any proposed system of intermediate and secondary education the question of allowing, or requiring the municipalities to establish such schools should be considered. During the past year we have seen many evidences that municipalities will cheerfully assist in the establishment of higher schools. The problem of "State aid" to higher education becomes comparatively an easy one when the schools are vested in public bodies or municipalities, and are not private institutions worked for profit.

TECHNICAL EDUCATION.

During my absence in Europe, the Technical Education Branch of the Education Department sustained a great loss in the death of Mr. J. Dennant, F.G.S., Inspector of Technical Schools. The time is opportune for organizing the work of this branch, with a view to the extension of technical education, which must ultimately come. Technical education work, as controlled by the Department, falls under three main headings—(1) Trade and higher-trade education. (2) Education in applied art. (3) Mining education. The work in applied art is

at present satisfactorily supervised by the Art Inspector, Mr. P. M. Carew-Smyth, A.R.C.A. (London). As regards mining education, I feel strongly that questions affecting the Schools of Mines should be considered by professional officers of the Education Department in consultation with officers of the Mines Department. A similar course is adopted in the case of the Agricultural High Schools, where it has been arranged that all matters affecting the curriculum and administration of these schools shall be settled by a joint committee, consisting of the Ministers of Education and Agriculture, and the Directors of Education and Agriculture. I should like to see a joint committee, consisting of the Ministers of Mines and Education, and the chief professional officer of the Mines Department, and the Director of Education, appointed to decide all matters of policy and course of study in Schools of Mines. At present, there is little connexion between these Departments, and the Schools of Mines therefore suffer. The Schools of Mines should be brought much more closely into touch with the miners. Under present conditions, we find the Mines Department requiring various certificates of proficiency from those engaged in mining, and holding examinations for these qualifications, quite apart from the recognised Schools of Mines. This is an instance of lack of co-ordination, which leads to lack of efficiency or to duplication of effort. The present is an opportune time for recommending, therefore, that the Chief Inspector of Mines should be associated with the Education Department as an inspector of Schools of Mines. If this officer reported from time to time on each School of Mines, a very desirable association between the two Departments would be brought about. As he is necessarily in close touch with practical mining, the reproach that is sometimes levelled against Schools of Mines would soon cease to exist. The above recommendation does not clash with the recommendations made as to a Council of Education.

Closer
connexion
between the
Education
and Mines
Department
desired.

There remain to be considered the organization, development, and inspection of trade work. I strongly recommend that an expert officer be obtained to guide the operations of the Department in this respect. He should be a man who has had a thorough training in a technical school of high grade; he should have had successful experience in at least one important industry; he should have a decided interest in industrial education, and, if possible, should have had educational experience. I take these qualifications from the advertisement of the Massachusetts Commission on Industrial Education. They were successful in getting such a man. We should probably be equally successful.

An officer
to supervise
Trade Work
required.

With our technical work thus organized, we should next review our courses of instruction in elementary schools, higher elementary or district schools, evening continuation classes, district agricultural high schools, and secondary schools; and determine whether they were of a character such as would be likely to lead on to higher work, and ultimately produce efficient men and women in their respective callings.

As in the case of intermediate and secondary education we should consider whether municipalities should not be brought into much closer relationship with technical education in their districts.

THE TRAINING OF TEACHERS.

Adequate training of all grades of teachers is essential.

It is a truism to say that the strength of any education system is the strength of the rank and file of its teachers. If we are to have a complete educational organization, we must develop a thorough system of training teachers for each grade. Our present training system is but in its infancy. We must look forward to a time when, as in Scotland, all of the teachers in elementary schools (and not, as with us, only a section) pass through a training college. This will involve the withdrawal of a large body of young teachers from active work in the schools for two years, and the employment of more adult teachers. Other countries have found it necessary to do this, and have willingly incurred the added cost, and we must follow their example. The training of secondary teachers is being undertaken in connexion with the Diploma of Education of the University, but here again the arrangements are only fairly satisfactory. We must increase our staff in the Training College if we are to cope satisfactorily with this branch of work, and we must establish a special practising school for secondary teachers. The Director of the Working Men's College, Mr. F. A. Campbell, has recently pointed out to me that we ought now to provide for the training of teachers for technical work, and there is every reason why we should do so. It should be possible to develop suitable courses for teachers of trade subjects by a joint arrangement with the Working Men's College and the Training College. Should a scheme for establishing a school of applied art in Melbourne be adopted, this might fairly become a centre for training teachers of this subject. We should therefore have in view a great increase in our system of training primary teachers and secondary teachers, and should further contemplate the establishment of courses for training our teachers of trade and art subjects.

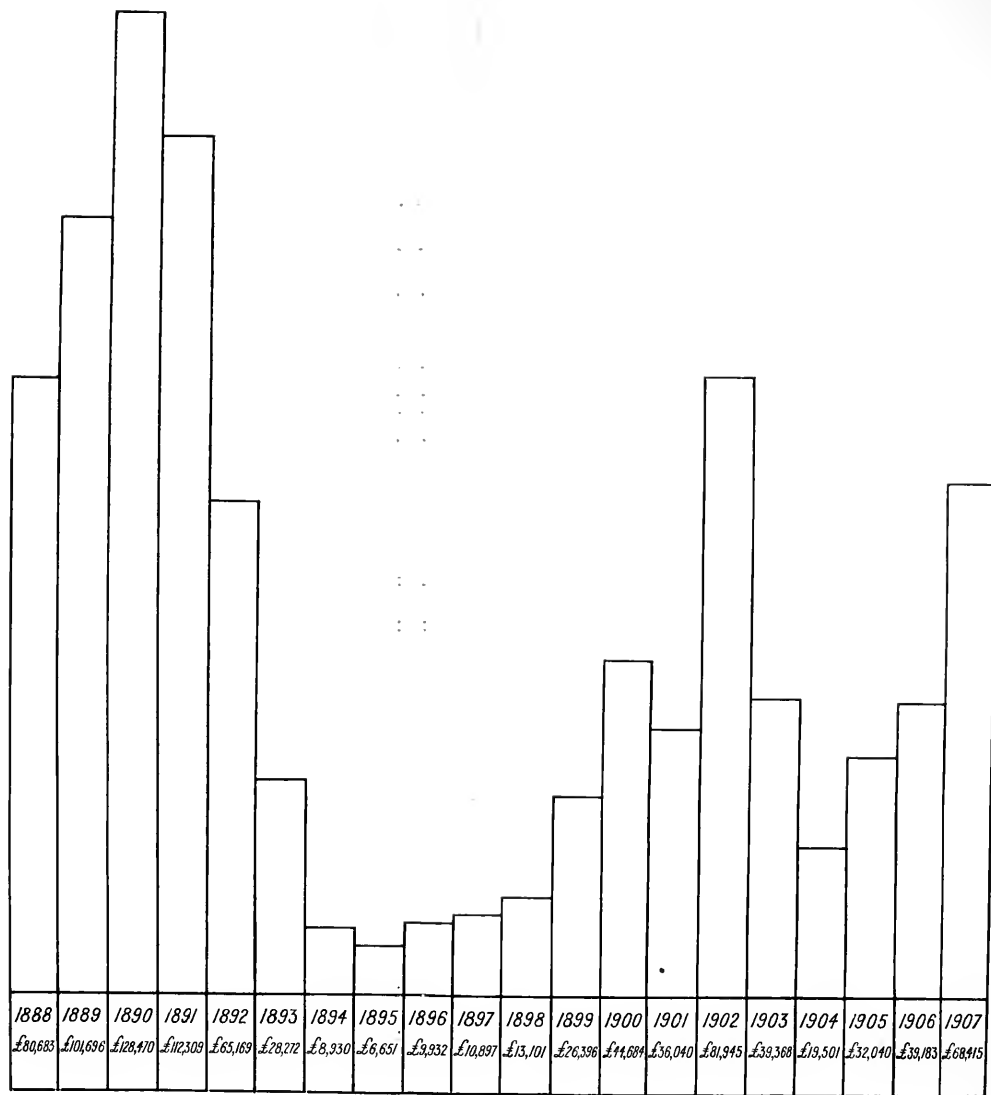


DIAGRAM SHOWING THE FLUCTUATIONS IN THE VOTE FOR STATE SCHOOL BUILDINGS IN VICTORIA DURING THE PERIOD 1888-1907. THE AMOUNT FOR EACH YEAR COVERS MAINTENANCE OF EXISTING BUILDINGS, PROVISION FOR NEW SCHOOLS, AND EXTENSIONS AND REMODELLING OF EXISTING BUILDINGS.

BUILDINGS AND EQUIPMENT.

In all of the countries that I visited the system of educational administration was either wholly, or almost wholly, local administration. One result is the excellent provision for buildings and school equipment. Where the people of a locality have the power of spending money on a building they insist that the children shall have proper conditions for healthy school work. Over and over again, when I was commenting upon the elaborateness and excellence of the school buildings I visited, I heard members of education boards make some such remark as: "Nothing is too good for the children." In Germany, in Switzerland, in England, in Canada, in the United States, I was taken to schools which were regarded as among the finest buildings in the city. I am sure that the State school buildings of Victoria would never have been allowed to drift into their present unsatisfactory condition had the local municipal authorities been concerned in maintaining them in a satisfactory condition. Could anything be more disheartening to permanent officers, or more unbusiness-like, than the course followed with respect to buildings in the past twenty years. The diagram facing this page shows the fluctuations in the vote for maintaining and erecting school buildings. There are 3,255 existing school buildings and residences to be maintained, and at a moderate estimate an annual grant of £30,000 is required for maintenance alone. New buildings are necessary to provide for the natural increase of population and for the fluctuations of population in a new country, yet from 1893 to 1907 our building vote has averaged annually £31,023!—barely sufficient for proper maintenance expenditure, with no provision for new buildings and extensions. Is it any wonder that during the past three months so many complaints have been made about the state of our buildings? When I was in Nuremberg the schools were in vacation, but in every school I visited the building was being scientifically cleansed and all interior walls were being recoloured. I was informed that the school law provided that this must be done periodically, at least every two years. There are schools in Victoria which have not been given even the rough cleansing of the house-painter for ten or fifteen years. No community would like to be charged with neglect of personal cleanliness. The periodical cleansing and renovation of public buildings should be as imperative a duty upon a community as his daily ablutions are to every self-respecting man. In a new country especially, where makeshift arrangements in the homes are too long tolerated, the public school buildings ought to be valuable object-lessons of cleanliness, healthfulness, and beauty.

Two courses are open to us. One is to maintain the present system of carrying out all work through the Departments of Education and Public Works; the other, to arrange with the municipal authorities for the maintenance of school buildings.

Present
unbusiness-
like
method of
dealing with
buildings
should be
improved.

Should it be decided to maintain the existing practice, reforms are urgent. Some business-like method of fixing the maintenance grant should be adopted instead of the present haphazard system. It is surely possible to allow for maintenance expenses a percentage on the capital cost of wooden, brick, and stone buildings respectively. New buildings could be provided for by separate vote. When that is done, such routine work as painting should be provided for periodically as a matter of course and not as at present by special application. It is now a matter of common knowledge that a large expenditure of money is necessary for the remodelling of many of our largest and most expensive school buildings in order to bring them into a better condition for healthy school work. It is regrettable that this should be so, but it points to the necessity for expert supervision of all questions relating to school architecture. We need a specially skilled officer as Superintendent of school buildings. I gave my reasons for this recommendation in a memorandum to the Minister in January last. One of the best features of American education reports is the annual report of the Superintendent of School Buildings. He is usually an alert architect who watches closely all progress in school building and equipment, and so keeps the community well posted in the world's progress in these matters.

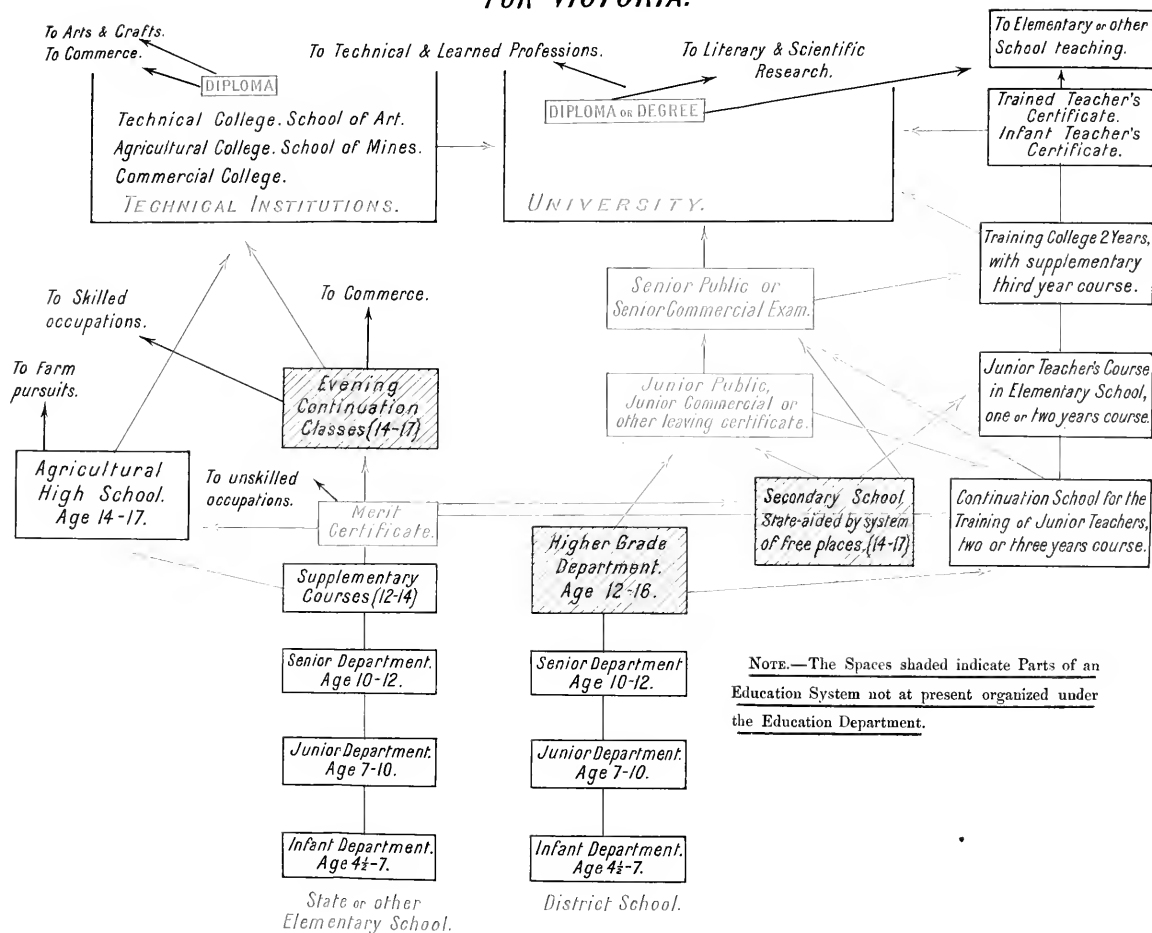
Municipali-
ties might
be given
control of
buildings.

Should it be decided to place upon the municipalities the duty of providing and maintaining school buildings, this could be done either by making a special grant equal to the present necessary building grants, or by empowering the municipalities to raise and expend amounts supplementary to a special State grant. New buildings that may be from time to time necessary could be provided for by special arrangements. The advantages of such a measure of decentralization in purely business matters are surely obvious, and the result in stimulating local interest in the local school, and in minimizing the exasperating delays due to our present cumbrous procedure, would be great indeed. Naturally, if the municipalities became a factor of educational administration, the work of the present boards of advice would merge in the municipality.

Municipal
technical
schools
suggested.

While I am dealing with the subject of utilizing local authorities in educational administration, I should like to add that the question of placing upon municipalities financial and other obligations in respect of intermediate and technical education should also be considered. During the past

CONSPECTUS OF PROPOSED EDUCATIONAL ORGANIZATION FOR VICTORIA.



two years some of the municipalities have shown great interest in the establishment of agricultural high schools and technical schools, and at Ballarat, Warrnambool, Sale, and the Eastern Suburbs of Melbourne, among others, the municipalities have voted sums of money for assisting in the establishment of such schools. In passing, it may be said that, if municipal secondary schools were established in Victoria, many of the difficulties of taking over existing private schools and of securing State grant might be easily overcome.

COUNCIL OF EDUCATION.

I would direct attention strongly to my remarks on page 73 in connexion with the proposed Council of Education. I think that the establishment of such a council is essential, if we are to get the best out of Victorian education. If it is true that the efficiency of a community depends upon a wisely-directed education system, it surely follows that the best expert advice in the community should be brought to bear upon all great questions of educational policy. Although an official (or, perhaps, because I am an official) I do not desire that the free development of education in Victoria should be hindered by rigid departmental methods. A satisfactory system of education can only be developed if there is continuity of policy. Such a council would, above all, stand for continuity of policy.

Moreover it is desirable that many types of schools shall be developed among us, *e.g.*, State-controlled schools, private schools, and great "public schools," and a Council of Education would do much to harmonize these elements into a national system.

The effect of the above recommendations as an approach to the satisfactory realization of a complete national system of education in all its grades may be seen in the conspectus on the opposite page.

I have the honour to be, Sir,

Your obedient servant,

FRANK TATE,

Director of Education.

APPENDIX A.

EDUCATION IN DRESDEN.

The following answers to questions were supplied to me by the Education authorities of Dresden, through the courtesy of the British Consul at Dresden, M. Henri Palmie :—

Q. 1. What is the population of Dresden?

Ans. 520,700.

Q. 2. How many children between the ages of six and fourteen are in schools?

Ans. 81,779.

Q. 3. May children under six years of age attend a public school (*Volkschule*)? If so, how many do so attend?

Ans. The educational laws provide that a child must enter school after completing its sixth year. The beginning of the school year is invariably Easter, and a child completing its sixth year between 1st April and 30th June may begin to attend school at Easter of the same year. Consequently no child under the age of five years and nine months may attend. It is impossible to obtain the number of these.

Q. 4. Are there any *Kindergärten* for children under six years of age in Dresden? If so, how many, and how are they supported?

Ans. There are no *Kindergärten* provided by the State or Municipality.

The Fröbel Stiftung (Foundation) maintains a training establishment for teachers in *Kindergärten*, which is a very successful undertaking.

There are two societies in Dresden that provide eight *Kindergärten* for the children of the poorer classes, and the city contributes £32 10s. per annum towards the maintenance of each of the six schools provided by the one society, and £50 to £60 each to the establishments of the other society. These societies make little or no charge, and the members of the societies subscribe among them the bulk of the expenses.

For the children of the better situated classes there are seven *Kindergärten* which are private undertakings, the fees charged being from 6 to 8 marks per month. In spite of the somewhat heavy rents prevailing in Dresden, most of these undertakings are fairly prosperous, some having been established a great number of years.

Q. 5. What is the percentage of attendance of pupils to the enrolment of the schools?

Ans. There are no statistics obtainable. It must be said to the credit of the Saxon people that they appreciate the value of education to such an extent, that there are only very rare instances known of parents allowing their children to neglect school.

Of all the young men in the kingdom of Saxony (population upwards of four millions) who had to be examined as to their fitness for military service in the year 1906, there were only four who could not read and write. It is more than probable, however, that these young men were not brought up in Saxony, but were abroad with their parents, as the education laws provide that children who do not attain a certain standard must stay at school an extra year.

Q. 6. Give a brief statement of the method of dealing with failure to attend school.

Ans. In the first instance, the teacher or head-master of the school has to report to the parents or guardian the absence of the pupil from school, and request that he or she may be compelled to attend. Should this step be unsuccessful, the parent or guardian is to be interviewed by the head-master, who must point out the advantages to be derived from regular attendance. If this does not avail, the education authorities can inflict a maximum fine of 30s. In the event of this not being paid, the parent or guardian is sentenced to arrest, minimum one day, maximum six weeks.

Parents who wilfully and continuously neglect to send their children to school are liable to have their offspring removed from their care, and placed at their cost in the homes of other people. The cost of this has to be borne by the community in the case of parents from whom the money is not to be obtained. But the parents are liable to incarceration for a time in establishments that are workhouses not merely in name.

Incorrigible children are sent to special schools provided by the State or community, or to a reformatory—always at the expense of the parents.

The above is the course prescribed by law, but, as already stated, it is scarcely ever necessary to put it into practice; and, if occasion arose, the severest measures would be adopted without any delay.

Q. 7. After a pupil has completed his fourteenth year and has left the public elementary school (Volksschule), what obligation as to further education is he still under?

Ans. Any boy who does not go to a higher school after leaving the Volksschule must attend an evening continuation school for three years, *i.e.*, to the end of his seventeenth year, and until the completion of his eighteenth year, if he was unable to reach the prescribed standard of the Volksschule on attaining his fourteenth year.

Q. 8. How many pupils in Dresden attend the evening continuation schools (Fortbildungsschulen)?

Ans. 5,163 attend the schools maintained by the municipality and 697 two private institutions. The schools are, however, not exclusively evening schools, as some lessons are given on Wednesday afternoons and Sunday mornings.

Q. 9. How many of such schools are there?

Ans. There are eight maintained by the city. The classes are not held in buildings specially erected for the purpose, but in the various Volksschule buildings.

Q. 10. Are the teachers of such schools employed during the day-time as elementary school teachers?

Ans. Yes, both head-masters and masters, who volunteer for the work, and receive extra fees for it.

Q. 11. How many hours per week do pupils spend in evening continuation schools (Fortbildungsschulen)?

Ans. The laws provide a minimum of two and maximum of six hours per week at the option of the community. In Dresden there are two kinds of these schools, the so-called "Larger," and the ordinary continuation schools. In both, the hours are four per week.

Q. 12. What steps are taken to provide for regular attendance at these schools?

Ans. The same course as in compelling attendance at elementary schools (see *Ans.* to Q. 6). In the case of the continuation schools, however, the master employing, or to whom the youth is apprenticed, is liable to the same penalties as the parent or guardian for preventing the youth attending. Refractory pupils of continuation schools are fined for not attending, and, if unable to pay, are incarcerated for a certain number of hours on Sundays or holidays. There are special cells provided for this in the municipal buildings.

During the year 1906 the number of punishments inflicted for truancy was 542, and of these 74 were punished with solitary confinement.

Q. 13. How many day schools for industrial work (Gewerbeschulen) are in Dresden?

Ans. There is only one purely Gewerbeschule, which belongs to the city, and there is the Industrial Art School, maintained by the State.

Q. 14. How many pupils are enrolled?

Ans. In the summer half-year 174, in winter 240, in the City Gewerbeschule. The State Industrial Art School is attended by 193 pupils.

Q. 15. What fees, if any, are paid?

Ans. 36s. per half-year in the Gewerbeschule. The fees in the Kunstgewerbeschule (Industrial Art School) are £3 per annum.

Q. 16. Are evening students provided for? What is the enrolment of such students?

Ans. Yes, and classes are also held on Sundays. The number attending these is 883 in summer and 909 in winter.

In the State school the number of students attending evening classes is 300.

Q. 17. In the answer to question 13 are schools of the type of the Handwerkerschule, of Andreas Strasse, Berlin, included?

Ans. Yes, but in the Dresden Gewerbeschule practical mechanics and electricity form a more important part of the work than in the Berlin school.

Q. 18. Answered in No. 17.

Q. 19. Are there any special schools for the training of special trades, e.g., carpenters, plumbers?

Ans. Yes; viz., barbers and hairdressers, druggists, printers, butchers, inn-keepers, plumbers and tinmen, pastrycooks, chimney sweepers, upholsterers, joiners, bootmakers, builders, smiths, bookbinders, painters and decorators. In addition to these, which are maintained by the various Guilds, there are special schools established and supported by the societies of tradesmen and artisans, and by the Horticultural Society. The attendance at some of these schools frees a youth from the obligation to attend the Municipal Continuation Schools.

Q. 20. Does attendance at Gewerbeschulen involve any civil advantages, e.g., in partial exemption from military service?

Ans. No; although occasionally a pupil of very exceptional ability may be recommended for one year's service instead of two. This privilege is not enjoyed by the Gewerbeschule alone, all the continuation or special schools may recommend a pupil, but it occurs very rarely.

Q. 21. Are the pupils of Gewerbeschulen drawn from pupils of Volksschulen or have they as a rule attended Realschulen?

Ans. With very few exceptions Volksschulen.

Q. 22. How many Realschulen are there in Dresden?

Ans. Three.

Q. 23. Do both boys and girls attend the same Realschule?

Ans. The Realschulen are for boys only. There are two Municipal Higher Schools for girls, and these rank officially with the Realschulen.

Q. 24. How does the Realschule differ from the Realgymnasium?

Ans. The Realschule is a 6 (year) class school, and the Realgymnasium is a 9 (year) class school. In the Realschule Latin is not taught, and the boy's school life ends at the age of 16. In the Realgymnasium Latin is taught and greater attention is paid to mathematics and science.

Q. 25. For what class of higher educational institution does each prepare?

Ans. The certificate granted on finishing the course of study at the Realschule entitles the holder to only one year's military service instead of two, and to enter the High Commercial School at Leipzig without examination.

The final certificate of the Realgymnasium entitles the young man to study any branch at a University excepting theology. At the Realgymnasium the certificate for one year's military service is gained merely by passing from the 4th class to the 3rd.

Q. 26. What is the enrolment of pupils in Dresden in each of the following:— Realschulen, Oberrealschulen, Realgymnasien, Gymnasien?

Ans.—

	No. of Schools.	No. of Pupils.
Realschulen	3	1,480
Oberrealschulen do not exist in Saxony.		
Realgymnasien	2	1,301
Gymnasien	4	1,705

Q. 27. How many higher Technical Schools are in Dresden?

Ans. One, the so-called "Technical High School" which ranks as a University and confers the degree "Doctor of Engineering."

Q. 28. Does this include Art Schools?

Ans. Besides the Industrial Art School mentioned in answer to Q. 13, there is the Royal Academy of Art. Both correspond to a great extent with English Schools of Art.

Q. 29. What test is applied to students in each of these schools before admission?

Ans. Any young man (German) wishing to study at the Technical High School must produce a final certificate from a German Gymnasium, Realgymnasium, or Oberrealschule. Those who have passed through the "Gewerbeakademie" in Chemnitz, or a Bavarian "Industrieschule" are also admitted without examination. Foreigners have to produce diplomas from Universities.

Those young men desirous of attending the day classes of the Kunstgewerbeschule (Industrial Art School) must produce a pass certificate from the State School for Drawing, "preparatory school," or proof of three years' practical work, with specimens of work. Pupils must have attained 16 and 17 years respectively.

Young women must have attained their 18th year, and bring proof of having gone through a course of preparatory training similar to the Gewerbeschule, and send in specimens of work.

For the evening classes the age limit is 14 years; Volksschule education suffices, but pupils must have special talent for drawing.

Q. 30. Give the cost of the two latest buildings of each class erected, and the accommodation.

Ans.—

- (a) Elementary schools (1906) combined Bezirksschule and Bürgerschule, cost £100,004 5s., to accommodate 1,100 and 700. (1906) Bezirksschule, cost £42,450, to accommodate 1,000. (1902) Bürgerschule, cost £21,210 18s., to accommodate 700.
- (b) School for Industrial Work (1901) Gewerbeschule, cost £37,147 4s., to accommodate 1,500 in day and evening classes.
- (c) High Schools (1903) Realschule, cost £38,203 13s., to accommodate 600. Realschule, cost £35,787, to accommodate 600. (1893) Realgymnasium, including ground, cost £47,187 16s., to accommodate 650. Realgymnasium built 1869, enlarged 1897 at cost of £2,100, cost £21,000. (1907) Gymnasium, cost £42,500, to accommodate 600. (1903) Gymnasium, including ground, £33,435, to accommodate 350.
- (d) Technical Art School (1907) State Kunstgewerbeschule with museum, cost £125,000, to accommodate 500 approximately.
- (e) High Technical School (1905) new buildings, cost £30,000, to accommodate 1,500.

N.B.—Excepting in the two cases specially mentioned, the above figures do not include the cost of the ground.

It should be noted that each Bürgerschule, Realschule, Realgymnasium, and Gymnasium is really a double school, all the classes being duplicated; in the Bezirksschulen the classes are triplicated, but there is only one headmaster in each school building.

ADDITIONAL REMARKS.

Volksschulen.—The Saxon educational laws prescribe three kinds of Volksschulen, viz., Low Grade or Village School, Middle Grade, and High Grade, having four, six, and eight classes respectively. In Dresden there are two kinds of Volksschulen, both of the High Grade, called *Bezirksschule* and *Bürgerschule*.

The Bezirksschulen are for children of the working classes. The maximum number in a class is fixed at 50, and the school fees are M7.20 Pf.=7s. per annum, or less than 2d. per week. Only two children of the same family pay these school fees at a time.

The Bürgerschulen serve a twofold purpose. The four lowest classes serve as preparatory classes for the *Realschule*, *Realgymnasium* and the *Gymnasium*. The highest classes provide a somewhat superior education for the children of tradespeople, and French is taught. The school fees are 4s. per month. Maximum number in a class, 40.

In both schools there are separate classes for boys and girls, separate entrances and lavatories being provided.

In the modern *Bezirksschulen* the girls in the first class have two hours a week instruction in cooking and housekeeping.

Most of the *Bürgerschulen* have a continuation class for girls, which is called "Selekta." In this class, which may be a one or two years' class, English is taught remarkably well, also advanced needlework, shorthand, typewriting, cooking, and house-keeping. The fees for this class depend on the number of classes attended and may amount to 20s. per month.

There are sixteen *Bürgerschulen* and 43 *Bezirksschulen* for Protestants in Dresden, and two special schools for backward children.

The Roman Catholics have to maintain eleven schools for the education of children of their confession, but these schools are managed by the Education Department of the municipality.

Continuation Schools for Girls are not prescribed by law, but of late years the Municipal Government has taken steps to provide these, or substitutes for them, e.g., the "Selekta" classes in the *Bürgerschulen*. Recently the City purchased a school formerly carried on by a Society, and it is now conducted as a branch of the *Gewerbeschule*.

Higher Education of Girls.—There are two schools maintained by the City for the general education of girls. They rank as *Realschulen* and take children at the age of six. They are composed of ten (year) classes, and French and English are well taught. A number of lady teachers are employed, but the higher posts are filled by University men. There are no headmistresses at any public schools in Saxony.

A year ago, by way of experiment, one of the *Gymnasien* was opened for girls. Only one girl has taken advantage of this as yet.

Teaching of Languages.—As the Teachers' Training Schools, called *Seminaries*, do not afford the opportunity for learning French efficiently, the City maintains an establishment at which the teachers engaged at city schools may study French thoroughly. They are subsequently supplied with the necessary funds for a year's further study in France. These teachers are then entrusted with the teaching of French in the *Bürgerschulen*, after passing a special examination.

A similar arrangement exists in respect of the High Schools, not only as regards French, but English too. In these cases the money is provided by the State.

Realschulen, Realgymnasien, and Gymnasien.—To illustrate the real difference existing between these, tables are appended showing the number of hours per week devoted in the various classes to each subject taught.

Tenure, Salaries, and Pensions of Teachers.—As it is not generally known, it is considered advisable to mention here, that after a year's trial a teacher is practically appointed for life, and can be dismissed only for misconduct or gross neglect of duties. The salaries of the teachers engaged at the Volksschulen are paid by the City, but the pension, to which each is entitled after a certain number of years' service, is paid by the State.

A summary of the numbers of pupils enrolled at the various schools on June 1st, 1907, will be found at the end. In connexion therewith it should be mentioned: It is possible a youth included in a continuation school may have been counted in a special school too. The compiler had no material at his disposal to test this, and he may be wrong in his conjecture, but he considered it his duty to mention the possibility.

TABLE shewing Number of Lessons (hour) per week given in each class, and the various subjects taught.

REALSCHULE.

					Classes.					
					VI.	V.	IV.	III.	II.	I.
Religion	..	..	..	..	3	3	3	2	2	2
German	..	..	..	..	8	6	5	4	4	4
French	..	..	..	..	..	6	6	6	5	5
English	..	..	..	..	..	..	..	4	4	4
Geography and History	..	..	..	..	3	3	4	4	4	4
Natural History	..	..	..	..	2	2	2	2	1	1
Physics and Chemistry	..	..	..	..	..	..	..	..	5	5
Arithmetic and Mathematics	..	..	..	..	5	4	6	6	5	5
Drawing	..	..	..	..	2	2	2	2	2	2
Writing	..	..	..	..	3	2	2	..	..	..
Total	..	..	..	..	26	28	30	30	32	32
<i>Additional—</i>										
Singing	..	..	..	..	2	2	2	1	1	1
Gymnastics	..	..	..	..	2	2	2	2	2	2

GYMNASIUM.

TABLE shewing Number of Lessons (hour) per week given in each class, and the various subjects taught.

			Classes.								
			VI.	V.	IV.	IIIb.	IIIa.	IIb.	IIa.	Ib.	IA.
<i>A.—Obligatory—</i>											
Religion ..	..		3	3	2	2	2	2	2	2	2
German ..	..		4	3	3	2	2	2	3	3	3
Latin ..	..		9	9	8	8	8	8	7	7-8	7-8
Greek ..	..		..	..	..	7	7	7	7	6-7	6-7
French ..	..		..	..	5	3	2	2	2	2	2
Geography ..	..		1	2	2	2	2	..	} 3	3	3
						half-yearly	half-yearly				
History ..	..		2	2	2	2	2	2			
Arithmetic ..	and										
Mathematics ..			3	4	3	3	4	4	4	4	4
Natural History ..			2	2	2	2	2	..	..	..	..
						half-yearly	half-yearly				
Physics ..	..		..	..	..	..	..	2	2	2	2
Writing ..	..		2	1	..	..	..	..	..	..	..
Drawing ..	..		..	2	2	..	..	..	..	..	..
			26	28	29	29	29	29	30	29-31	29-31
<i>Additional—</i>											
Singing ..	..		2	2	1	1	1	1	1	1	1
						and 1 hour choir practice					
Gymnastics ..	..		2	2	2	2	2	2	2	2	2
<i>B.—Optional—</i>											
Hebrew ..	..		..	..	..	..	..	..	2	2	1-2
English ..	..		..	..	..	..	..	..	2	2	1-2
Drawing ..	..		..	..	..	..	..	1-2			
						in several graded classes					
Shorthand ..	..		..	..	..	..	1-2	1	..	..	..

TABLE shewing Number of Pupils enrolled at the various public and private schools in Dresden on June 1st, 1907.

Description of School.	Number of Schools.	Boys.	Girls.	Total.	Number of these between 6 and 14 Years.
<i>A.—Municipal Higher Schools—</i>					
1. Kreuzschule, Gymnasium	1	498	..	498	215
2. Wettiner	1	499	1	500	212
3. Vitztum	1	278	..	278	134
4. König Georg	1	429	..	429	330
5. Drei-König-Schule Realgymnasium ..	1	640	..	640	295
6. Annenschule	1	661	..	661	324
7. Realschule No. I.	1	566	..	566	328
8. „ „ II.	1	417	..	417	256
9. „ „ III.	1	497	..	497	271
10. Girls' High School No. I.	1	..	487	487	388
11. „ „ II.	1	..	468	468	365
<i>B.—Municipal Volksschulen—</i>					
12-28. Bürgerschulen	17	7,461	5,836	13,297	13,231
29-74. Bezirksschulen and two schools for backward children	46	28,025	30,125	58,150	58,075
<i>C.—Schools controlled by City—</i>					
75. Ehrlich Endowed School	1	109	102	211	199
76. City Reformatory School	1	45	12	57	57
<i>D.—State and Endowed Higher Schools—</i>					
77. Gymnasium, Dresden-N.	1	516	..	516	233
78. Freemasons' School	1	269	..	269	147
79. Cadet School	1	225	..	225	24
80. Male Teachers' Seminary, Dresden-F. ..	1	180	..	180	..
81. „ „ „ Dresden-Pl.	1	208	..	208	..
82. Female Teachers' Seminary	1	..	199	199	..
83. v. Fletcher Teachers' Seminary (Endow)	1	197	..	197	..
<i>E.—State Endowment and Societies' Schools, ranking as Volksschulen—</i>					
84. Pestalozzi School	1	58	..	58	58
85. Girls' School of Female Teachers' Seminary	1	..	280	280	42
86. Fletcher Seminary Practice School ..	1	72	102	174	174
87. Male Teachers' Seminary Practice School, Dresden-F.	1	126	55	181	181
88. Male Teachers' Seminary Practice School, Dresden-Pl.	1	51	52	103	103
89. Deaf and Dumb School	1	133	109	242	..
90. School of Society "Rat und Tat" ..	1	192	198	390	390
F.—91-101. Roman Catholic Schools.. ..	11	2,221	2,134	4,355	4,303
<i>G.—102-106. Private Gymnasien and Real- schulen</i>					
.. ..	5	979	..	979	429
<i>H.—107-120. Other Private Schools</i>					
.. ..	14	154	1,244	1,398	1,011
<i>J.—Continuation Schools—</i>					
121-123. City Continuation Schools ..	8	5,163	..	5,163	4
129. Society School	1	407	..	407	..
130. Private School	1	290	..	290	..
<i>K.—Special Schools—</i>					
131-134. Gewerbe and Commercial Schools, chiefly Theoretical (Day Schools) ..	4	2,081	..	2,081	..
135-149. Evening Special Schools (Trades)	15	2,703	..	2,703	..
150-177. Gewerbe and Commercial Schools	28	1,397	1,452	2,849	..
178-194. Music and Dramatic Schools ..	17	899	1,433	2,332	..
Totals	194	58,646	44,289	102,935	81,779

APPENDIX B.

EDUCATION IN NUREMBERG.

The following answers to questions were supplied to me by the Education authorities of Nuremberg, through the courtesy of the British Vice-Consul at Nuremberg:—

Q. 1. What is the population of Nuremberg?

Ans. 307,000.

Q. 2. How many children between the ages of six and fourteen are in schools?

Ans. In elementary schools children, as a rule, attend seven years, namely, between the ages of six and thirteen. The figures given include the Municipal High Schools for Girls. A few of the elementary schools provide for an eighth year of education, but this is voluntary.

1906-97	...	...	18,811 boys
			21,343 girls
			<hr/>
			40,154
			<hr/>

Furthermore, in addition to those attending elementary schools, there are boys and girls of between ten to fourteen years attending as follows:—

Altes Gymnasium, approx.	...	...	185 boys
Neues „	...	...	256 „
Kreis-Realschule I.	...	...	476 „
do. II.	...	...	362 „
Real Gymnasium	...	...	312 „
Gombrichs Real—& Handelsschule approx.	...	...	161 „
			<hr/>
			1,752
			<hr/>
High School for Girls (Municipal)	...	...	427

Q. 3. May children under six years of age attend a public school? If so, how many do so attend?

Ans. No.

Q. 4. Are there any Kindergarten Schools for children under six years of age in Nuremberg?

Ans. There are 27 Kindergarten Schools, in which the children are taught by Kindergarten teachers who have passed their examinations as such. The schools are supported by fees payable by the parents and by municipal grants.

Q. 5. What is the percentage of attendance of pupils to the enrolment of the schools?

Ans. Per scholar 14.24 fail to attend, being excused for absence, and 0.35 are not excused.

Q. 6. Give a brief statement of the method of dealing with failure to attend school.

Ans. Teachers report to the school inspectors. Parents or guardians, and children are summoned to appear before the School Board, who hear, examine, and inflict punishment.

Absences on account of certain causes such as illness, distance from school, stormy weather, absolute necessity requiring help of child at home, etc., are excusable; but in every case after notice is served, parents or guardians (and sometimes the employer and teacher) must attend the School Board meeting, and state reasons for absence. Refusal to attend the Board meeting is treated as a refusal to attend a court of justice.

Punishments :

1. Warning. 2. Fine.

Fines :—First time—For each absence from one penny to sixpence.

Second Time—First fine doubled.

Third time—The fine may reach one shilling for each absence.

Further offences are dealt with according to the regulations under the Police Act.

Q. 7. After a pupil has completed his fourteenth year and has left the Public Elementary School (Volksschule), what obligation as to further education is he still under?

Ans. Three years' attendance at the Continuation Schools.

Q. 8. How many pupils in Nuremberg attend the Evening Continuation Schools (Fortbildungsschulen)?

Ans. 6,278 boys, and 6,424 girls.

Q. 9. How many of such schools are there?

Ans. 206 classes for boys, and 201 classes for girls.

Q. 10. Are the teachers of such schools employed during the day-time as elementary school teachers?

Ans. By far the greater number.

Q. 11. How many hours per week do pupils spend in Evening Continuation Schools (Fortbildungsschulen)?

Ans. Boys 6 hours, girls 3 hours.

Q. 12. What steps are taken to provide for regular attendance at these schools?

Ans. The scholars who attend irregularly are taken before the School Board. School punishments effect regular attendance.

Q. 13. How many Day Schools for Industrial Work (Gewerbeschulen) are in Nuremberg?

Ans. Stadt Baugewerkschule, Konigl. Kunstgewerbe Schule, Konigl. Industrieschule, in future "Technikum" (Technical Institute).

Q. 14. How many pupils are enrolled?

And

Q. 15. What fees, if any, are paid?

Ans.—

14.	15.
Stadt. Baugewerkschule :—	
Day School—	
Winter Term : ... 540.	Entrance fee, 3 Marks.
Evening Classes—	Fees, per term, 36 Marks.
Winter Term : ... 820.	(In case of necessity, total or partial
Summer Term : ... 205.	remission of fees.)
Konigl. Kunstgewerbe Schule :—	Entrance fee, 10 Marks.
Winter Term—	For day pupils :
Day pupils ... 197.	Winter term, 20 Marks.
Evening pupils ... 70.	Summer term, 10 „
Summer Term—	For evening classes :
Day pupils ... 138.	Winter term, 10 Marks.
Evening pupils ... 33.	Summer term, 5 „
Konigl. Industrieschule :— 144.	Foreigners pay double fees.
In future "Technikum"	For Technical Institute :
(Technical Institute).	Germans pay 50 Marks per annum.

N.B.—1 mark 1 shilling.

Q. 16. Are evening students provided for? What is the enrolment of such students?

Ans. Yes. (See 14.)

Q. 17. In the answer to question 13 are schools of the type of the Handwerkerschule of Andreas Strasse, Berlin, included?

Ans. None in Nuremberg.

Q. 19. Are there any special schools for the training of special trades, *e.g.*, carpenters, plumbers?

Ans. There are technical schools for carpenters. Various guilds control technical schools. Konigl. Kreislandwirtsschule (98 scholars). Schuckert's, a limited liability company of electro-technical engineers. Particulars of the last two follow—

AGRICULTURAL SCHOOL AT LICHTENHOF (KREISLANDWIRTSSCHULE).

Aims.—Religious and moral education; a good general education; and scientific and practical courses enabling the scholars to become supervisors of small or great estates (or farms).

Course.—Five years.

Subjects.—Religion, German, French, Geography, History, Arithmetic, Algebra, Plane and Solid Geometry, Trigonometry, Zoology, Botany, Physics, Chemistry, Mineralogy, Rearing of Plants and Animals, Farm Management, Book-keeping, Drawing, Writing, Shorthand, Gymnastics.

Admission.—Pupils must be at least 10 years of age and not over 13 (though older pupils may be admitted). Certain certificates are necessary.

There may be an entrance examination corresponding to that of the fourth class. Pupils coming from High Schools are placed in the class corresponding with their abilities and knowledge.

Leaving Certificate.—This is obtained by examination. It entitles exemption from one year's military service. It also, after at least one year's practical work on a large estate, gives entrance to the Royal Agricultural Academy and similar institutions (such as the great brewery at Weiheustephan).

Fees.—Board, etc., equal to £20 per half-year, £2 10s. extra for minor expenses. Pupils must bring certain necessaries with them. Tuition fees run from 30s. to 60s. Poor scholars can have all the fees remitted and all books lent them.

TECHNICAL SCHOOL OF THE ELECTRICAL COMPANY AT NUREMBERG (SCHUCKERT & Co).

The school is carried on in connexion with the works. Sons of working-men pay no fees; other students pay a very small fee. Those engaged in the work have the first claim to places in the school.

The school has three courses: the first 13 hours a week; the second, 14; and the third, 13.

The subjects are:—German, Arithmetic, Book-keeping, Exchange, Algebra, Geometry, Geography, History, Hygiene, Physics, Mechanics, Chemistry, Electricity, Engineering, Drawing.

Q. 20. Does attendance at *Gewerbeschulen* involve any civil advantages, *i.e.* in partial exemption from military service?

Ans. No.

Q. 21. Are the pupils of *Gewerbeschulen* drawn from pupils of *Volksschulen*, or have they as a rule attended *Realschulen*?

The Nuremberg School has five courses. Instruction is given only during winter months (November to March). In summer months, pupils must occupy themselves with practical work.

Admission.—The condition of admission is to have passed through a complete and successful course of a *Volksschule*, the proof of which is determined by an entrance examination. The age of the pupil must be fifteen years, and a previous practical training in a building trade, which for Nuremberg is a practical summer course. Pupils already highly trained in practical work will be given the preference of admission. Nuremberg demands from her pupils who have attended the five courses of a *Realschule*, or the equivalent course of another *Mittelschule* with success, only a short course in Manual Training.

The *Oberrealschule* represents itself as an educational institute of nine classes with the characteristics of an intermediate school, which, in opposition to the

humanistic Gymnasium with its classical and historical base, relies on mathematics, natural sciences and modern languages. At the present time, arrangements are being made to form the upper classes in one or other of the Oberrealschulen into a preparatory school for certain professions and higher industrial and technical schools. This new type of school will take the place of certain industrial schools which are to be closed.

In every district, there shall be at least one Oberrealschule attached to one of the existing Realschulen; but, in large manufacturing cities, there may be two or more. With reference to the privileges for students of the Oberrealschule, the following departments of the public service will probably be open to them:—The middle offices in the Customs Department, the offices in the Public Survey Department, the lower positions of teachers of Chemistry, of Physics, of Commerce, of Architecture, of Machine Construction, of Modern Languages; the higher positions in Public Libraries, the Public Works Department, the Engineering Department; higher positions in Railway Workshops; higher positions in technical departments of the Post and Telegraph Department, the Mining Department, the Treasury, and other Departments.

Q. 22. How many Realschulen are there in Nuremberg?

Ans. Two Realschulen and an Oberrealschule in course of formation.

Q. 23. Do both boys and girls attend the same Realschule?

Ans. No.

Q. 24. How does the Realschule differ from the Realgymnasium?

Ans. The Realgymnasium teaches Latin, and the Realschule does not.

Q. 25. For what class of higher educational institution does each prepare?

Ans. At Nuremberg, reforms are setting in. The Konigl. Industrieschule, will be closed as such. In place of it, there will in future be attached to one of the Realschulen, an Oberrealschule. In addition there will be a "Technikum," or Higher Technical College.

Realgymnasium prepares for the science, mathematical and modern language courses in the Universities, also for higher technical schools.

Realschule prepares for higher technical schools, particularly for Agricultural High Schools, the Kunstgewerbeschule, Gewerbeschulen, and Teachers' Training Colleges.

Q. 26. What is the enrolment of pupils in Nuremberg in each of the following:—Realschulen, Oberrealschulen, Realgymnasium, Gymnasium?

<i>Ans.</i> Kreisrealschule I.	...	...	...	...	707
Kreisrealschule II.	...	...	...	...	580
Oberrealschule I.	...	...	...	...	108
Realgymnasium	...	...	...	...	857
(This includes the Reformgymnasium, which teaches French instead of Latin in the first three classes).					
Altes Gymnasium	...	...	...	...	428
Neues	...	...	...	...	527
Gombrichs and Handelsschule	...	...	...	...	281

Q. 27. How many Higher Technical Schools are in Nuremberg?

Ans. One Technikum.

Q. 28. Does this include Art Schools?

Ans. No.

Q. 29. What test is applied to students in each of these schools before admission?

Ans. Realschule { The age of pupils is at least 9 years and 9 months,
Realgymnasium { but not above 13. Four classes of the elementary
schools or an equivalent education.

Oberrealschule: Six classes at the Realschule

Baugewerkschule: Seven years at the elementary school, and to be 15 years of age; or five years Realschule and various other tests.

Kunstgewerbeschule : To be 15 years of age. To have received satisfactory instruction in drawing and modelling; and to have at least the Leaving Certificate of the Primary Schools and a satisfactory preparation in practical work.

Technikum : Principally for those who have passed the Baugewerbeschule or the Realschule. Any young man holding the Berechtigungsschien für den Einjährig Freiwilligen Militärdienst (one year's Military Certificate). Also, proofs of having spent two years in some industry, and evidence of considerable skill in Drawing, are necessary.

Q. 30. Give the cost of the two latest buildings of each class erected, and the accommodation.

Ans. (a) Volksschule : 4—700,000 Marks = £20,000 to £35,000. This does not include cost of ground built on. In a report furnished in July, 1906, to the London County Council, I mentioned the cost of buildings, the cost of ground built on not included, as £24 to £26 per head of scholars provided for.

(b) Realschule : M. 900,000 (£45,000), without cost of ground built on.

APPENDIX C.

TECHNICAL CONTINUATION SCHOOLS OF MUNICH.

By Paul H. Hanus, Professor of Education, Harvard University.

Since 1900 the city of Munich has gradually been transforming its "continuation schools" for elementary-school graduates (corresponding to our grammar-school graduates) into elementary technical schools for apprentices in the trades and in business. The city now maintains thirty-eight different kinds of these schools, as follows: In 1900, were opened schools for butchers, bakers, shoemakers, chimney-sweeps, and barbers; in 1901, for woodturners, glaziers, gardeners, confectioners, wagonmakers, and blacksmiths, tailors, photographers, interior decorators, painters' materials; in 1902, for hotel and restaurant waiters, coachmen, painters, paperhangers, bookbinders, potters and stove setters, watchmakers, clockmakers, jewellers, goldsmiths and silversmiths; in 1903, for foundrymen, pewterers, coppersmiths, tinsmiths, and plumbers, stucco workers and marble cutters, wood carvers, "Schäffler," saddlers and leather workers; and in 1905, for business apprentices, printers and typesetters, lithographers and engravers, building-iron and ornamental-iron workers, machine makers, mechanics, cabinetmakers, masons and stonecutters, carpenters.

Evening continuation classes of a technical character.

The industries represented by these schools are the chief industries of the city of Munich, with one exception—beer—for the manufacture of which only higher instruction is given, under other auspices. Munich has half a million inhabitants and therefore approaches Boston in size. It is not, however, like Boston, a city of great industries and immense business interests, nor is it surrounded by a suburban population like that of Boston. It is a great town, rather than a great city, and life there is admirably described by the German word *gemütlich*—comfortable and companionable.

Munich is about the size of Melbourne.

That, in spite of the absence of great industries and great business enterprise, it nevertheless maintains a unique and wholly admirable system of technical continuation schools, whereby those who must leave school at about thirteen or fourteen years of age are well trained for the several callings on which they enter, is due partly to the general principle universally recognised in Germany, that efficiency in any calling, from chimney-sweeping to watchmaking, requires special training for that particular calling; but chiefly to the energetic and far-sighted city superintendent of schools (*Stadt Schulrat*), Dr. George Kerschensteiner, who saw that the ordinary continuation schools failed to supply a much-needed technical training for beginners in the trades and in business. He also

Practical and theoretical work combined.

saw that a large part of the education received by the children who had to go to work when only thirteen or fourteen years old was lost for want of further education between that time and early maturity. He also recognised, what we see very clearly, that the ordinary training of the usual continuation schools (corresponding to our evening schools) failed to hold the interest and attention, as well as to meet the pressing needs of most of those for whom they were intended.

Continuation
classes as
a broad
preparation
for
citizenship.

He also recognised the enormous importance of keeping young people between the ages of thirteen or fourteen and seventeen or eighteen under systematic educational influence for the moral and social welfare of these young people, as well as for their technical efficiency. He saw that by combining good general education, good technical education, and good education in the rights and duties of citizenship at an age when citizenship begins to have a real significance to the young, he might expect to exert on them a permanent influence for good—moral, intellectual, and technical.

Relationship
between
continuation
classes and
technical
classes.

He wrote a brilliant paper based on a comprehensive investigation into the existing technical schools of Europe, and both the results of his investigation and the subsequent paper were published. His paper was entitled "The Education of German Youth for Citizenship" (*Staats bürgerliche Erziehung der Deutschen Jugend*). It was submitted by him in competition for a prize offered by the Royal Academy for the Dissemination of Useful Knowledge (*Königliche Akademie der Gemeinnützigen Wissenschaften*), in Erfurt. In this paper, he answered the question proposed by the Academy, "How can we best train our young men for citizenship during the interval between their graduation from the elementary school and their entrance into the army?" His paper won the prize. Thereupon, he urged his city to transform the existing continuation schools (corresponding to our evening elementary schools) into technical continuation schools. His appeal to the authorities of Munich and of the State (Bavaria) was successful, and the present admirable scheme of Munich's *Fachliche Fortbildungsschulen* (Technical Continuation Schools) is the result. These schools are, in very many instances, not evening schools. As continuation-school education is compulsory for three, sometimes four, years in Bavaria for all elementary-school graduates, the law requires employers to give their employes the necessary time—six to ten hours a week, depending on the school—to attend the continuation schools. Each pupil is required to attend the continuation school planned for the trade or business in which he has found employment. If a youth is not employed in trade or business, he must attend the old-fashioned continuation schools, of which several still exist. It was my good fortune to visit several of these schools during the past winter. Every facility was afforded me by Dr. Kerschensteiner, and especially by his first assistant, Inspector Schmidt, to enable me to see these schools just as they are.

The whole series of schools is too new to enable them all to be equally efficient, yet it is safe to say that no more promising educational scheme has ever been set on foot anywhere; and the success attending the opening of the first of these schools in 1900 led the city to extend them with constantly increasing success, until now there are nearly forty of them.

The technical instruction in these schools is, at present, given in most instances by a member of the trade or business concerned. The remainder of the instruction is given by some of the day-school teachers, except the instruction in religion, which is given by a Roman Catholic priest, or by a Protestant clergyman, or by a rabbi, each to the people of his faith. In my opinion this instruction in religion is badly given, and quite without valuable effect. But it is required by law.

Supply of
teachers.

As it happens that many good trade workers and business men cannot teach well, the city is encouraging trained teachers to learn the several trades; it grants them leave of absence for this purpose, and some progress in this direction is being made.

Each school is in charge of a committee responsible to the general school authorities, and special pains are taken to secure the best citizens for these committees, and especially to secure the best representatives from the trade or business for which a school stands, and there are always representatives from the teaching force on each committee. In this way each school tends to serve progressively the general and technical ends for which it exists, and is, of course, in each case, kept in close touch with the particular needs of, and the special progress in, the particular trade or business which the school serves.

The following programmes give an outline of the work done in two of these schools:—

CONTINUATION SCHOOL FOR BUSINESS APPRENTICES.

STUDIES.	HOURS PER WEEK.			
	Preparatory Year.	First Year.	Second Year.	Third Year.
Religion	1	1	1	1
Arithmetic *	2	2	1	1
Bookkeeping ... ..	...	...	1	...
Banking and Exchange ... ..	...	...	1	...
Business correspondence, reading † ...	3	2	1	1
Commercial geography and study of materials ‡	1	1	1	2
Studies in life and citizenship § ...	...	1	1	1
Stenography ... ..	...	2	2	...
Writing	1	1	1	...
Total	8	10	10	6

* All the problems are taken from the actual business in which the pupils of a given group are engaged.
† Reading is general, but much of it pertains to business careers and to the particular business in which the pupils are engaged.

‡ The raw materials and also the manufactured products are studied. One group, instead of this, receives instruction in money, banking, and finance.

§ Personal and public hygiene; duties, rights, and opportunities of the apprentice; decorum; development of trade; transportation and communication in Germany; trade organizations; capital and labour; chamber of commerce, and industrial exchange (*Gewerbe Kammern*); civics, made as concrete as possible.

CONTINUATION SCHOOL FOR CARPENTERS AND CABINETMAKERS.

SUBJECTS OF STUDY.	HOURS PER WEEK.		
	Winter Half-year.		Summer Half-year.
	Classes I. to III.	Class IV.	Classes I. to III.
Religion	1	...	1
Arithmetic and bookkeeping †	1	1	1*
Reading and business composition	1	...	1*
Studies in life and citizenship	1	1	1
Drawing—			
(a) Carpenters	6	6	...
(b) Cabinetmakers	3	6	5
Practical Technology ‡—			
(a) Carpenters	2	...	...
(b) Cabinetmakers	2	...	1
Total: (a) Carpenters	12	8	3
(b) Cabinetmakers	9	8	9

* Alternately.

† As before, the work in arithmetic consists of the actual problems of the trade concerned, here of the problems actually to be solved by carpenters and cabinetmakers.

‡ Study of woods, tools, machines, and their uses.

In addition to these programmes the city publishes detailed descriptions of the work done in each school. Some of these continuation schools are provided with a preparatory year, because elementary-school pupils are obliged to pass only seven grades of the eight grades provided for the elementary schools; most pupils who have not taken the voluntary eighth grade are put into the preparatory class of the continuation school.

These programmes are given here in outline only. But they may serve to call attention to the important class of schools which they illustrate, and the study of further details cannot fail to be of use to those whose duty it may be to plan similar schools for our own city and State.

The schools described are for boys, but a large technical continuation school for girls, with two divisions—one for household or domestic training, and one for business training—is already in existence.

Certain conclusions suggest themselves as the result of a study of these schools, namely :

1. They solve the problem of how to keep under appropriate educational influence during their period of adolescence that great body of youth who are obliged to leave school when only thirteen or fourteen years old.

2. There is in them complete utilization of educational opportunity by the pupils. There is no economic or educational waste. Attendance being compulsory, punctuality and regularity of attendance are assured.

3. The programme of studies for each kind of apprentice school is strictly limited in scope to an essential minimum of subject-matter, general and technical, and the nature of this subject-matter is well adapted to the end in view, namely, the extension of the youth's education as an individual and as a citizen, and the foundation of progressive interest and technical skill in his chosen calling.

4. All the teachers, except the shop-work or technical teachers, being trained teachers (elementary-school teachers) the methods are generally excellent, and the results correspondingly good. This is, of course, another reason why there is so little economic and educational waste. Every hour of instruction counts.

5. Only youth already in service are members of these schools.

6. Since representatives of the several trades and businesses are on the governing boards of the several schools, the technical work should be, and probably is, determined by the actual contemporary needs of the several vocations represented by the schools.

7. The schools embody a well-defined policy that underlies all forms of activity in Germany, namely, that every efficient worker, whether in trade, business, or profession, requires general education, and, also, technical preparation for the particular work he is to do.

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